

Studies in Islamic Social Sciences

Masudul Alam Choudhury

Professor of Economics

University College of Cape Breton

Nova Scotia

Canada

With a foreword by Johan Saravanamutta Abdullah

and a chapter by B. N. Ghosh, Abdul Fatah Che Hamat,
Muhammad Syukri Salleh and Hanapi Mohd Noor

Interest in Islamic social science has grown phenomenally in recent years, in Islamic countries and beyond. Yet there remains a great deal of conceptual work to be done. Professor Choudhury's work aims to conceptualize socio-economic thinking along true Islamic foundations of knowledge. The book argues that the question of the search for ultimate truth in the social sciences, like unification theory in the natural sciences, revolves around the immutable worldview premised on knowledge causing unification. It presents reality in all shapes and forms, in the small and in the large and in every aspect of the sciences, against the backdrop of the universal principle of unification. This is the only truth that remains immutable in both science and experience. It is a truth that singularly emanates from the Divine roots of knowledge. This presents equally the principle of Divine Unity as is manifest by the Laws in all of reality. Concepts and application gain their meaning, purpose and prowess in and through the Divine Laws. Such Laws increasingly unify all of reality in the premise of knowledge as derived from the Divine roots. This is the central message of this book with regards to the varied issues and problems of the social sciences. They are taken up here in contemporary perspectives as a normative worldview.

For a note on the author, please see the back flap

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Foreword

I had the pleasure and the honour of meeting Professor Masudul Choudhury when he was Visiting Professor at the School of Social Sciences at our university from April till September 1995. I was immediately struck not just by the drive and commitment to a cause of the good professor but also by the cerebral power with which he endowed his favoured subjects. I needed no further convincing after I stepped into the first of the seminar series we organised in his honour and keenly followed some of the other presentations (when time permitted) to pick up the threads of what has now turned out to be a pioneering work in Islamic social scientific epistemology and ontology.

Let me first commend roundly and sincerely Professor Choudhury for the publication of his tome and express on behalf of the School of Social Sciences, Universiti Sains Malaysia, our heartfelt thanks for his inspiring and fruitful sojourn with us in 1995. That sojourn has not only brought forth this book but also helped to give birth to what promises to be a *Journal of Islamic Political Economy* at an imminent future date to be housed here in Penang as well as a programme in Islamic political economy to be offered by the School of Social Sciences in the near future. In connection with his impending visit, the School also organised the inaugural biennial International Conference on Islamic Political Economy in December 1994 at which Professor Choudhury was a keynote presenter.

As I read it, the importance of Professor Choudhury's work is its subtle engagement rather than total disengagement with 'Western' epistemology and ontology as manifested in the social sciences. His deep understanding of Western traditions has allowed him to define what constitutes an Islamic world-view based on the concept of *Tawhid*, denoting holism and unity. However, at no point in his writing does Professor Choudhury call for a debunking of the rigour and systematic thinking as well as the necessary scientific tools that have often taken Western science to great heights. In delving into an Islamic political economy, the principles of the Islamic perspective guide rather than supersede the scientific approach to knowledge. Professor Choudhury is himself a consummate economist schooled in the best mathematical traditions of that discipline. His approach, which

is at once liberal and Islamic, underscores the strength of his work and I hope it will inspire other Islamic scholars to follow suit.

Dean

School of Social Sciences
Universiti Sains Malaysia

JOHAN SARAVANAMUTTU ABDULLAH

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When writing this book I benefited from many sources. First, I am indebted to the School of Social Sciences, the Science University of Malaysia (USM), which invited me as Visiting Professor of Economics for the period April–September 1995. This occasion provided the opportunity to present the chapters of this book as a series of lectures in the School of Social Sciences to the students and faculties of this university. I shall always cherish fond memories of the most cordial and congenial environment for collegial interactions that was provided by the School of Social Sciences during this time. It is therefore only appropriate to mention the names of Professor Johan Saravanamuttu Abdullah, Dean of the School of Social Sciences, Dr Abdul Fatah Che Hamat, Chairman of the Economics Programme at this School, Dr Mohammad Syukri Salleh, Chairman of the Development Programme at this School, and a host of other colleagues, who were so helpful, assertive and kind to me in my project.

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Professor of Economics
University College of Cape Breton

MASUDUL ALAM CHOUDHURY

Notes on the Contributors

Johan Saravanamuttu Abdullah is Professor of Political Science of the School of Social Sciences, Science University of Malaysia, Penang, Malaysia.

B. N. Ghosh is Professor of Economics at the School of Social Sciences, Science University of Malaysia.

Abdul Fatah Che Hamat is Lecturer in Economics at the School of Social Sciences, Science University of Malaysia.

Hanapi Mohd Noor is Lecturer at the School of Humanities, Science University of Malaysia.

Muhammad Syukri Salleh is Associate Professor at the School of Social Sciences, Science University of Malaysia.

Introduction

This book comprises a set of lectures that were given to university-wide faculty members at the School of Social Sciences, the Science University of Malaysia, during the author's visiting professorship in Economics there between April and September 1995. This was a most fortunate opportunity to interact with learned colleagues and discuss with them the many conceptual, applied and technical issues of Islamic social sciences in general and Islamic political economy in particular. These discussions took place at a most exciting time in Malaysia's history as it was laying down the building blocks of a caring and civil society that will mature into an industrialised nation by the year 2020. This was also a time when many issues concerning socioeconomic development and a broadly interactive multifaceted decision making of a truly participatory nature in Malaysian national life were being debated. In addition my lectures were presented at a time when Malaysia was making bold and innovative strides towards the Islamisation of its national economy, institutions and policies. Hence this book is an attempt to lay down the conceptual, applied and technical aspects of a wide-reaching model of Islamisation in an age of globalisation.

In this age of globalisation, while nations are being tied together in a borderless world by rule-based institutional preferences and policies, new questions and a fresh search for greater social well-being for the human race have risen to the surface. These questions are part of an inexorable thrust for the discovery of true freedom from the yokes of the Eurocentric machinations of Western empires that has gone on for so long and under so many guises. The questions have continued to be asked and are raised in deeply critical ways both intellectually and politically as the process of globalisation enforces its capitalistic order and its new mercantilism in manifest ways. Questions such as the 'end of history' often used to convey global convergence to capitalism and the Western institutional framework, are being critically rejected for alternative global arrangements. This pursuit is occurring more at the intellectual level than at the political level across nations states, but the advance towards globalisation is opening up distinct opportunities for interface and dialogue between policymakers and intellectuals in the search for social well-being. In the midst of the paradigm of sustainability, the nature of the intellectual inquiry in which others must join for the quest for truth, is one that both sustains and in turn is sustainable by its inner strength. What other premise of this unique inquiry be

but of knowledge! Knowledge here presents itself as interactions attained among agents through extensive participation. Such knowledge formation generate higher levels of the common good an example of which is social well-being (Agius, 1990).

This book is a project towards that continuing theme of the Islamic world view of economy-society-institution interactions in national and international forums, wherein individual and group preferences are created and sustained by knowledge as interactions. In turn, such interactions regenerate knowledge to higher levels of truth. Truth and the medium of knowledge remain the most immutable features of all systems. In 1931 Alexander Gray wrote of the impermanence of all shades of economic doctrine: 'Economic science, if it be a science, differs from other sciences in this, that there is no inevitable advance from less to greater certainty; there is no ruthless tracking down of truth which, once unbarred, shall be truth to all times to the complete confusion of any contrary doctrine'. This incessant search for truth presents an alternative scope for an alternative economic reasoning to today's socioeconomic problems.

The search for ultimate truth in the social sciences, like unification theory in the natural sciences, revolves around an immutable world view premised on knowledge and leading to unification. It presents reality in all shapes and forms, small and large, and in every aspect of the sciences against the backdrop of the universal principle of unification. This is the only truth that remains immutable in both science and experience. It is a truth that emanates from the divine roots of knowledge and presents the principle of divine unity as manifest in the laws in all of reality. Concepts gain their meaning and purpose in and through the Divine Laws. Such laws increasingly unify all of reality in the premise of knowledge, as such knowledge flows are progressively derived from the divine roots. This is the central message of this book with regard to the varied issues and problems of the social sciences. We will examine at length the relationship of flows of knowledge to the Divine stock of knowledge. We will study and apply this knowledge-centred relationship to contemporary perspective of a normative world view.

The stock-flow unification world view of knowledge is presented here within the framework of an interactive-integrative model premised on an evolutionary epistemology. This bestows on the world and its agents a learning-by-doing power to know and to unify choices. The other terminologies used in this book for this same process of unification by interaction, integration and evolution – all of which are premised on the Divine Laws and their realisation – are as follows: the *Shuratic* process, the principle of universal complementarity, and ethical endogeneity.

These original contributions to the study of Islamic social sciences are taken up within the broad framework of science, society, markets, institutions, individuals and groups as participatory and interactive decision makers to form the centrepiece of this book.

Within the framework of this interactive-integrative world view the problems of epistemology, development, political economy, institutionalism, globalisation, markets and science are brought together to develop an Islamic world view of the social sciences. Malaysia is used as a dynamic example of a nation state that has committed itself to certain aspects of Islamic transformation as a rational alternative to present-day economic and social thinking (Ibrahim, 1990).

At the same time the scientific and epistemological picture, and the institution-society-economy linkages of the knowledge-centred world view presented here cause this book to be of credible worth to all those who pursue science devoid of prejudice. The message is thus of universal inquiry in the social sciences, political economy and scientific methodology. In these respects this book opens up a wealth of original inquiry and questions for all social scientists in the perspective of a different postmodern outlook on the interrelationship between economy, society, institution and science (Choudhury and Hamat, 1995).

Glossary of Principal Arabic Terms

Adah Customs.

Ahadiith Sayings of the Prophet Muhammad.

Ahkam Rules of life and thought derived by the method of *Ijtihad* (see below) applying to the socio-scientific order.

Akhira Hereafter, the Final Event of creation.

Al-Haqqa Truth and Certainty premised on the Divine Laws.

Al-Ilm Knowledge to know God's Unity and His creation.

Al-Istihsan-wal-Maslaha Preference formation on matters determining the *Shari'ah* appropriateness of these for the public purpose.

Allah Monotheistic Creator, here also referred to as God.

Amanah Saham Shareholding in Malaysia to assist the poor and underprivileged and help integrate them in a modern society.

Ansars Protectors of believers (classically used in the *Qur'an* to mean residents of Madinah who protected the evictees of Makkah, *Muhajirin* (see below); also used for supporters of the Prophet Isa (Jesus).

Ayath al-Allah (Ayath) Signs of God as creational indicators of God's Greatness.

Dhimmis The minority of the Islamic State entrusted (*Dhimma*) for protection under Islamic Law.

Dhururiyyath Necessaries of life to guarantee social well-being of individuals.

Eid al-Adha Festival of sacrifice to commemorate and take spiritual stock of Prophet Abraham's dream in which he was asked by the angel to sacrifice his son Ismail for the love of God. But when Abraham passed this test by his willingness, he was asked in his dream instead to substitute a lamb.

- Falah* Well-being in the broad sense of the term.
- Fard Ayn* Obligatory knowledge and learning in Islam and belongs to the acquisition of religious knowledge of Islam.
- Fard Kifaya* Recommended but not compulsory for the Islamic existence of the individual.
- Fiqh* The science of interpreting *Sunnah* (see below).
- Gharar* Speculation as distinct from risk and uncertainty.
- Hablum-Minallah* Individual duties directly to God.
- Hablum-Minannas* Individual duties to fellow beings.
- Hajjiyyath* Comforts of life to guarantee higher levels of satisfactions of social well-being.
- Hajj* Pilgrimage to Makkah by Muslims.
- Halal* Permissible things and actions under Islamic Law.
- Haram* Forbidden things and actions under Islamic Law.
- Hima* Protected lands for ecological purposes practiced by the Prophet Muhammad and subsequently in the classical Islamic society.
- Ibadah* Worship in the Islamic sense.
- Ijma* Social consensus, here taken in terms of all matters relating to the socioscientific application of *Shari'ah* (see below).
- Ijtihad* Authoritative research to develop rules of life and interpretation and extensions of Islamic Law in reference to *Qur'an* and *Sunnah* (see below).
- Islah* Goodness and piety.
- Israf* Waste both in consumption and production.
- Jahannum* Hell, the Final Place of Perdition as ordained by the Divine Will in the *Qur'an*.
- Jannah* Heaven, the Final Resort of Divine Bliss as ordained by the *Qur'an*.
- Jizya* Tax on the non-Muslim inhabitants of an Islamic State who do not pay and do not receive the benefits of tax payments on Muslim citizens, called *Zakah* (see below).

- Khalq-in-Jadid* Re-origination of creation, meant both in terms of the continuity of creation and in terms of the Final Event, Hereafter (*Akhira*).
- Lauh Mahfuz* The essence of the *Qur'an*, also mentioned as the Tablet.
- Mubah* Undetermined things and actions between *Halal* and *Haram* (see above).
- Mudarabah* Profit and cost sharing in Islam.
- Muhajirin* Evictees from Makkah who were driven out by the unbelieving tribe of *Qureish* and who then took refuge with the *Ansars*, new Muslims, in Madinah.
- Musharakah* Equity financing in Islam.
- Mutakallimun* Islamically learned scholars.
- Qiyas* Analogy as a method in forming *Ahkam* (see above) out of *Shuratic* (see below) discursions. It is practiced particularly by the very learned in Islam (*Mujtahids*).
- Qur'an* Revealed Book to the Prophet Muhammad.
- Riba* Financial interest, but strictly any increase taken over the due worth of a thing in monetary or physical terms.
- Sharee* Members of the *Shura* (see below) who are required to have high integrity and knowledge of *Shari'ah*.
- Shari'ah* Islamic Law.
- Shura* (hence *Shuratic*) Islamic consultation explained in the *Qur'an* as a universally discursive process governing the Islamic socio-scientific order.
- Sidratul Muntaha* The celestial flight of the Prophet Muhammad to the realm of perfect knowledge to the extent ordained by *Allah* to him.
- Sunnat al-Allah* Divine laws.
- Sunnat al-Rasul* (also *Sunnah*, *Risalah*) Guidance of the Prophet Muhammad.
- Tahsiniyyath* Refinements of life as the third higher category of goods to satisfy social well-being.
- Taqwa* God-consciousness.

<i>Fal</i>	<i>Tawhid</i> Oneness of God.
<i>Fai</i>	<i>Tazkiyyah</i> Purification of self and society by means of the actions and applications of <i>Shari'ah</i> .
<i>Fai</i>	<i>Umm al-Kitab</i> The <i>Qur'an</i> , meaning mother of books, also the essence of <i>Qur'an</i> and hence <i>Lauh Mahfuz</i> .
<i>Fiq</i>	<i>Ummah</i> World nation of Islam understood geographically and epistemologically in terms of unity of knowledge and action, thus also <i>ummatic</i> .
<i>Gh</i>	
<i>Ha</i>	<i>Urf</i> Traditions.
<i>Ha</i>	<i>Usul al-Shari'ah</i> The foundation of <i>Shari'ah</i> .
<i>Ha</i>	<i>Uswatul Hasanah</i> A nation of goodness, guidance and bliss.
<i>Ha</i>	<i>Zakah</i> Islamic wealth tax levied on savings and assets existing either in liquid or disposable forms (jewelry and animals) net of a given exemption for the fiscal year (<i>Nisab</i>).
<i>Ha</i>	
<i>Ha</i>	
<i>Hir</i>	
<i>Iba</i>	
<i>Ijm</i>	
<i>Ijte</i>	
<i>Islc</i>	
<i>Isri</i>	
<i>Jah</i>	
<i>Jan</i>	
<i>Jiz</i>	

1 Comparative Islamic View in the Methodology of the Social Sciences

This chapter is divided as follows. First, we undertake a brief coverage of the evolution of occidental thought in economics to illustrate the epistemological structure of this area of thought. Second, we extend the epistemological root that has embedded itself in occidental social science doctrines to the study of occidental institutionalism and its treatment of society and ethics. Third, we outline the attributes of the Islamic view in the social sciences, including its application to economic knowledge and institutionalism. Our coverage in this part is not so exhaustive as to cover the details of the interactive-integrative unity principle that grounds Islamic socioscientific order. For details on this methodology the reader may refer to the author's other works (for example Choudhury, 1995).

CLASSICAL ECONOMIC AND SOCIAL SCIENCE LEGACY

In this section we trace the doctrines of classical economic and social science in the works of Adam Smith on the laws of motion of capitalism, the market exchange; in the civil libertarianism of Bentham and his utilitarian doctrine; in the Hobbesian choice on individualism; and, in the context of the entire liberal philosophy, in the works of John Stuart Mill and John Locke. In all these we aim to discern the power structure of the pervasive message of methodological individualism that the classical school of economics and social sciences thoroughly conveys.

Adam Smith's Economic and Social Epistemology

Adam Smith's epistemological foundations in economic science emanate principally from his *Theory of Moral Sentiments*, which preceded his magnum opus, *The Wealth of Nations* (Smith, 1937, 1966). In *Moral Sentiments* the seeds of human proclivity to freedom as an expression of natural liberty are sown. The individual's freedom to gain liberty is seen as the highest goal, just as Aristotle had raised the goal of human happiness to

be the end-all of life (Welldon, 1987). In both Aristotle and Smith, the epistemology premised on natural liberty meant a natural cosmic equilibrium that emanates from, establishes and orders life around a natural appeal to justice. When natural liberty exists, it is seen to become the cause and effect of global societal equilibrium. Man in the midst of such a cosmic order determined by invisible hands is seen to comply with and react to moral rules.

One must note the subtle relationship between the key attributes in Smith's *Moral Sentiments*, namely freedom, natural liberty and moral laws governing human behaviour. Freedom and natural liberty together determine the exogenous order of laws that are at once predetermined and equilibrating. The divine laws were thus behind Smith's epistemology as they were for Tawney, whom Smith emulated in his *Moral Sentiments*. Yet freedom to Smith meant man's flight from individual rationality into the realm of reason alone. Freedom thus assumed the Aristotelian character of happiness as the supreme good. Ideas of well-being and sympathy were subsumed in Smith's concept of freedom.

In both Aristotle's notion of happiness and Smith's concept of freedom, the flight of rationalism premised on individual reason makes the relationship between freedom and natural liberty a divine attribute, to be limited by the extent of reason. Divine laws in the precincts of natural laws were thus functional only to the limits of reason. In the case of religion, Smith's concept of natural liberty treated religion as the perceived relationship of humanity to the divine law through the medium of rationalism. This delineation of religious epistemology in *Moral Sentiments* was Kantian in nature. Kant considered religion to be a product of reason and not vice versa. Kant's writing respected the possibility of religion within the limits of reason (Infeld, 1963, p. 80): 'A clear exposition of morality of itself leads to the belief in God. Belief in this philosophic connexion means not trust in a revelation, but trust arising from the use of reason, which springs from the principle of practical morality'.

With the rational relationship between freedom and liberty Smith combined the quest for moral laws. In the same direction of the arguments presented above, moral or ethical laws are seen to emanate from and be limited by the extent of human reason and rationality. Social reality for Smith, as for Aristotle, thus commences from the limits of reason and rationality alone. In summary, the tripartite relationship between freedom, natural liberty and moral laws are seen to belong to and become functional only within the limited domain of human reason and rationality. This is the epistemological foundation of *Moral Sentiments*.

From this origin Smith moves into the model of interactions among the constituents of the tripartite relationship, that is, among freedom, natural

liberty and moral law. Confined within the domain of reason alone, the goal of freedom as the highest good drives Smith to seek complete hegemony of self, for only in this state can all individuals be optimally rewarded by self-interest. Aristotelian happiness as the highest good now equates with Smithian freedom as the highest goal in terms of optimal material reward. Markets as a medium of exchange among a large number of transactors then become instrumental in realising this optimal material reward. Individuals become atomistic self-interested agents interacting in such a market order. The market in turn becomes a necessary system to realise this theatre of man's egoistic individualism and self-interested hegemony in the presence of an exogenous moral law premised on freedom and happiness of material substance, as far as reason alone determines the tripartite relationship. Morality premised in the concept of natural liberty becomes the cause and effect of this material concept of individualism.

Premised on the Smithian epistemology of the tripartite relationship, the concept of wealth, capital accumulation, growth and distribution in classical economic thought are explained by the concept of atomistic entrepreneurial efficiency. This in turn is motivated by the individual's material craving for capital accumulation, which is realised through the interest rate as the guiding factor in mobilising savings and forming capital. From the assumed positive relationship between interest rate, savings and capital formation comes economic efficiency. This in turn generates specialisation as an individual entrepreneurial spirit and causes economic growth to occur. From the presence of individualism centring on the attributes of specialisation and growth emanates the sole claim over output by the economic agent. This creates the capitalist differentiation between those who own capital and those who produce output. Wages, profits, rents and interest are not merely distinct but competing payments among independent and individual economic agents. Thus distribution as a social mobilisation of resources from capitalist to worker does not coexist, despite Smith's epistemology of a market order premised in the concept of natural liberty.

Now, in the tripartite relationships between freedom, natural liberty and moral laws in *Moral Sentiments*, the market and production relationships in *Wealth of Nations* become instruments to realise and reinforce each other. Such a general system of interrelationships between the activities and results of Smith's market order establishes the complete Smithian social and economic epistemology. It is completed in a systemic fashion (O'Brien, 1991). Yet because the epistemology here is a rationally driven one in which divine laws become dysfunctional by the limitations of rational individualism, optimal conditions, equilibrating state and the exogeneity of natural liberty laws in the complete system, these latter

states cause systemic independence among the rational agents. This is a methodological consequence of Smithian order. It at once conveys the essence of non-interaction in the optimal and equilibrated economic and social order as configured by Smith and bequeathed to occidental thought by the classical economic school.

Jeremy Bentham's Economic and Social Epistemology

Jeremy Bentham's utilitarianism is yet another epistemological basis of classical thought that has transcended into civil libertarian institutions. Classical individualism and atomistic view of economic agents ground the concept of social welfare on the lateral aggregation of individual utilities. In such a framework, the institution is seen as an aggregation of the preferences of independent rational agents, each optimising their own self-interest independently of all others. Institutions are seen to attain optimal and equilibrium states, just as individuals do in Smith's social and economic order. In the same way the tripartite relationship between freedom, natural liberty and moral laws becomes ingrained in occidental institutionalism in the emulative spirit of the utilitarian philosophy of methodological individualism (Quinton, 1989). Consequently the entire gamut of institutional influence on the economy and society, along with the policy regimes that emanate from such an arrangement, are driven by the force of individualism (Harsanyi, 1955).

Classical utilitarianism has bequeathed liberal institutions to the occidental order. Such institutions survive and are reinforced by the cause and effect of individualism feeding on power. Logically therefore they must cultivate self-seeking behaviour. Methodological individualism thus becomes the epistemological foundation of the entire occidental order, according to the classical economic and social doctrines.

Yet it needs to be noted that utilitarianism in liberal philosophy is not simply across individuals but also across goods. In other words, institutional utilitarianism applied to economic goods means independence and hence competition between sources of specialisation, efficiency and well-being in the collective sense. Lateral aggregation of preferences is now extended to personal choices among goods. This finally leads to replacement of or trade-off between goods. The most important Hobbesian choice in this respect is the trade-off between economic efficiency and distributive equity (Parson, 1964). Global complementarity between goods in order to satisfy individual preferences is thus non-existent in institutional utilitarianism, whether in terms of individual agents or goods, sectors or choices. Such an institutionalism becomes benign to interactions (Scaperlanda, 1987).

The Liberal School

Utilitarianism received profound criticism in the writings of John Stuart Mill and John Locke, both of whom were leading exponents of liberalism (Mill, 1994). Yet as they were unable to replace the general epistemological foundation of the classical order these classicists had to retain the notion of man as a rational being driven by reason alone, and therefore the divine laws remained dysfunctionally isolated from the realm of social and economic reality. Thus when Locke and Mill preached the doctrine of free will and humanitarian society they were constructing a model of the individual as a morally capable agent. Yet the environment of the individual remained entrenched in rationalism and competition. Likewise, even though the individual was now seen as capable of interacting for the common good and not simply as endowed with acquisitive passion, the choices made remained entrenched in free will. The premise of free will remained empty of any epistemological groundwork to explain why the individual would logically abandon his or her animal spirit for the sake of humanism if Hobbesian choice loomed great before him or her (Rhoads, 1985).

The way out of such conflicts between free will, rational individuals and functional society premised on civil libertarianism was to call on the power of the state to legislate and enact laws. The conflict then arose as to how much government would be tolerated by the electorate. To what extent would individualistic rational agents be prepared to sacrifice their self-interests? How much private cost versus social welfare would a society made up of individualists be prepared to bear? The failure to answer such questions led to trade-offs or costly ways of bringing about social well-being. Examples of such social costs in liberal society since its inception are taxation, colonialism, mercantilism and the dependency of marginalised groups on powerful ones in an unequal social fabric. All of these had to be sustained by liberalism as its outcome. Due to such unfortunate choices, social costs had to be introduced into institutionalism as conceptualised by Locke and Mill (Arrow, 1974).

Hayek, Von Mises and Buchanan's Liberalism

Hayek's Economic Liberalism

Hayek was the most recent champion of classical liberalism. He can be categorised as being among the later classical school, calling for greater humanism and a role for social interactions through liberal philosophy. Yet in tandem with the argument given above with respect to the unavoidable

relapse of all kinds of liberal order into the individualisation processes, we find Hayek becoming a victim of this unavoidable consequence. One can see this in Hayek's viewpoint on social justice in a market economy. According to Hayek, social justice becomes a mirage in such a system. Hayek argues that since it is logically impossible to point out the transgressor of just behaviour in a market economy, social justice loses its value as a meaningful constraint for private behaviour in market exchanges (Hayek, 1976).

This marginal notion of social justice in the market economy is also due to individualistically formed utilitarianism in social institutions, which Hayek would like to see in the interests of advancing economic efficiency. Economic institutions, including the market, must thus remain singularly oriented towards economic efficiency, profit maximisation and orderly behaviour, in Hayek's view. In such a situation social justice becomes a mirage for Hayek, in the institutional structure as in the market order (Ferry and Renault, 1992).

With so marginal a role for social institutions and the exclusive role of economic institutions in enhancing economic efficiency, markets and institutions fail to present any ethical relevance. Markets are seen by Hayek to have a spontaneously catalytic effect in establishing information, prices and direction of financial resources and goods. Such a catalytic effect is no different from the idea of market equilibrium, despite Hayek's emphasis on institutional liberalism. With equivalence among market catallaxy, market equilibrium, optimality and rational choice of economic agents, all of the precepts of classical individualism are built into Hayekian thought (Choudhury, 1993a).

Hayek's theory of money is often misinterpreted. It is often argued that money for Hayek is an instrument for productive entrepreneurial activity rather than speculative hoarding; that is, money is neutral in real economic relationships (Bridel, 1989). Conceptually this may be true, for in Hayek's spontaneous market catallaxy, money cannot be speculatively held. Speculation requires expectations, which in turn require time lags. In a capital market of the capitalistic order, financial speculation is a central feature of money. Capitalist institutions promote an intensification of speculation for self-seeking gains. Consequently Hayek's concept of monetary function becomes dysfunctional in this capitalistic reality. On the other hand, if money is held in the Hayekian sense, it must be integrated with the concept of market catallaxy. That would make money a social credit with a 100 per cent currency base and any independent function of money in the real economy would disappear (Doak, 1988; Fisher, 1911; Steiger, 1989).

While Hayek placed great trust on markets as the end of the liberal order, the social function of markets and institutions become marginalised

in his work. Thus, all economic variables, be they output, price level, allocation or money, become instruments for promoting market catallaxy without any ethical considerations being taken into account. Classical economic relationships between economic variables, money and market equilibrium and the utilitarian aspects of institutionalism all become embedded in Hayekian liberalism (Hayek 1976).

Ludwig von Mises' Economic Liberalism

The epistemology of Ludwig von Mises is premised on the *praxis* of reason (Mises, 1960). Von Mises aims to construct a universal theory of economics based simply on the logic of pure reason. The historical aberrations of economic systems and societies are not of interest to von Mises, as these are thought to be exceptions to the scientific nature of economic science. Examples of the latter types can be found in Marx (Avineri, 1973) and recently in North (1981).

For von Mises the problem of economic theory should be pursued in the name of the scientific *praxis* of human reason. The behavioural predictability of economics is sacrificed for nicety. The essential reality of institutional influence in markets and human behaviour remains unexplained in the face of scientific elegance. In this way the classical invocation of natural law forming the normative essence of theory grounds the tripartite relationship between freedom, natural liberty and moral laws. Such a view of the economic universe is formed by von Mises by virtue of his Kantian-type epistemological reasoning, whereby the ideal verity of an optimal and equilibrated natural order stereotypes human behaviour. Furthermore, such an epistemological view is structural in nature, as the evolution of economic knowledge by flight of reason does not alter the linear path of the Misesian conception of the *praxis* (Mises, 1976).

It is then natural that for Hayek and von Mises the formation of price, output and money must be contravention of markets governed by equilibrated steady states that emulate the essence of natural laws. The evolution of reason under the conditions affecting natural laws must itself be of a linear nature, admitting no aberrations caused by institutional, behavioural or historical shifts. In occidentalism and liberalism such an epistemological outlook in economic theory underlies the Eurocentric concept of social convergence.

James Buchanan's Social Contractarianism

In recent times James Buchanan has taken up a social-contractarian approach to economic institutionalism by reviving neoclassical utilitarianism

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(Buchanan, 1975). The kinds of methodological individualism, bounded rationality and optimal constitutional games that establish exchange between institutions and the electorate and among institutions are brought together to explain the competing behaviour of institutions and the electorate. Social contractarianism, according to Buchanan, is thus a Darwinian phenomenon of natural selection among powerful institutions. It is seen to develop constitutional arrangements that either enforce order or enact self-seeking strategies that optimise dividends from the electorate. Coalitions in such dominant or strategic constitutional arrangements mean a Benthamite type of laterally aggregated individual utilities within the framework of utilitarian philosophy (Hammond, 1987). With this, the methodological consequences of independence, competition and substitution become consequentialist. Sen referred to such market consequentialism as the impossibility for realising a moral standing of markets (Sen, 1985).

NEOCLASSICISM AND ECONOMIC EPISTEMOLOGY

The level of dualism and pluralism arising from methodological individualism and reflected in marginalist substitution between competing goods and resources is carried to the limits of ethical neutrality in neoclassical methodology. This principle of marginalist substitution in neoclassical economics is also reflected in occidental social and institutional theory. It forms the crux of the problem of methodological individualism in the neoclassical order. Besides, since the consumer utility function, price formation, resource allocation and production objective are all governed by the marginal substitution principle, methodological individualism grounded in this principle is seen to universally affect all components of the market and institutional order.

In the case of perfect competition, institutions are absent or remain silent in resource allocation. Now the marginal substitution principle holds perfectly. The market order becomes a perfect manifestation of conflict and individuation among competing alternatives. The resulting optimality and equilibrium that are assumed to exist in perfect competition are of the category of Hayek's ethically neutral verities, Smith's natural law condition and von Mises' logical idealisation in the presence of *praxis*. Yet it should be noted that optimality and equilibrium under such ideal conditions are merely assumed results. They are not the solution of actual relationships in the social and economic universes. Shackle comments that one cannot therefore be sure that any such state that is not of our making,

not the result of a process of social and economic relationships, can ever be attained (Shackle, 1972).

Neoclassicism also addresses imperfect competition. In this, distortions in resource allocation, price, output and equilibrium conditions are taken up. But the problem with neoclassical methodology is that in both perfect and imperfect competition, optimisation and equilibrium assumptions are uniquely maintained. Consequently, for example in oligopoly, the *process* of forming and explaining the dynamics of collusion is omitted. Instead prices and outputs are determined by solving optimal economic criterion function. In the optimal state that is hence assumed to exist and be solvable, it becomes uninteresting to address the interactions between conflicting and colluding agents. Thus no *process* dynamics of decision making can be explained by neoclassical models of oligopoly. This non-interactive individualism in oligopoly, along with the underlying marginalist substitution principle, continues the ethically benign nature of neoclassical economic and social behaviour.

Since the marginalist substitution principle is premised by cause and effect, in independence, individualism, non-interaction and ethical benignity such economic reasoning remains simply a nicety with no predictive power. The question then is, is the human world as individualistic and self-seeking as the classicists and neoclassicists present it to be, or can humanity be an essential part of markets? The answer to this question is of both a normative and a positive nature.

Normative Economic Methodology

On the normative side, optimality and equilibrium states that emulate the natural liberty framework in the human world are mechanistic idealisations without real content. On this basis, economic and social theories premised on such assumptions lose their predictability in the real world. Only such idealised theories treat markets as being bereft of ethical relevance. But in a world of interactions with markets at its midst, there is no outright reason to reject the role that markets as an interactive institution can play in formulating ethical behaviour (Polanyi, 1971).

Rather, if we abandon the normative assumptions of optimality, equilibrium and steady state either in the static neoclassical world or in the evolutionary economic universe, then human behaviour cannot be a stereotype of natural laws. Now the presence of interactions becomes an evident *process* of change and an explanatory part of the economic universe embedded in a larger complex of the political economy. Indeed the meaning of normative law in such an evolutionary, institutionally relevant social and economic

universe can no longer be premised on the epistemology of rationalism. It has to reside in the epistemology of a unified world view of reality and thus it derives its roots from the spring of irreducible truth that appeals to humanity at large. This is the revealed law that is entrenched in divine unity. Social reality thus becomes embodied in a divine revelation that primarily guides human behaviour in accordance with the textual laws that underlie ethics, morality, institutions and prescriptions.

Marx tried to invoke the labour theory of value to explain his perceptions of the alienating nature of capitalist exchange in classical political economy. Yet his epistemology was based on reason. Hence, by interplaying the unregulated premise of reason with the instability of capitalist institutions in the economy at large, Marx's economistic view of the world was highly chaotic (Staniland, 1985). Consequently the laws governing ethical action towards the formation of order are irrelevant in Marxist political economy. There are no textual laws of institutions or markets to derive a civilising behaviour that could be different from the hegemony or convergence reflected by individualistic behaviour in a capitalistic market order.

On the positive side of economic laws, the observational nature of events is found to leave the development of economic history to empirical facts alone. Sometimes these events have ethical relevance; sometimes they remain unethical or ethically neutral. In the midst of this unsettled state, no particular inference can be made for any side. Indeed one of the failures of institutional economics was its inability to ground a conceptual world view on scientific theory even as it tried to tackle the positive nature of social and economic evolution (Feiwel, 1987).

Positive Economic Methodology

The problem of positive mainstream economics respecting the question of ethical relevance is once again an epistemological one. A precise epistemological premise remains absent. For example just and fair pricing as an ethical action in markets may not lead to a change in the waste of basic needs. Consequently no epistemological meaning can be associated with a just and fair price *per se*. On the other hand interest transactions can lead to shortfall in investment. Now a reversal of policy to a lower interest rate could be prescribed. An unethical precedent thus leads to an ethical consequence, and clear ethical relationship between variables and economic actions once again remains absent. Only when, say, the abolition of interest transactions is found to reinforce by cause and effect an efficient economy and just returns, can a meaning be made for the illegitimacy of interest charges in the economy. The abolition of interest in such a way,

leads us far away from the marginalist substitution principle into the domain of complementarity between economic efficiency and distribution. Now the ethical relevance of positive economic theory is found to rest upon the principle of global complementarity, contrary to marginalist substitution.

Thus only by reorganising institutional and behavioural prescriptions in accordance with markets along lines of global interactions can complementarity, rather than substitution, be of any ethical relevance to markets. This means that textual laws commonly upheld by societies should be premised on standards of moral laws that are humanly motivating and do not reside in non-prescriptive notions of natural liberty law. The epistemological roots of economic and social reality are then steered away from the open-ended world of rationalism and premised on a primordial knowledge-centred world view of unity of life.

MICROECONOMIC AND MACROECONOMIC DICHOTOMY: MARX, SCHUMPETER, THE CLASSICAL AND KEYNESIAN EPISTEMOLOGY AND SOCIOECONOMIC ANALYSIS

Schumpeter, Marx and the Austrian School

Classical and neoclassical economic analyses make no particular distinction between microeconomics and macroeconomics. For example Ricardian growth and the labour theory of value are at once applied to corn production (microeconomic) and aggregate production (macroeconomic). Smith's specialisation and division of labour apply to entrepreneurial analysis (microeconomic) as well as to the production of wealth (macroeconomic). Later on in the history of economic thought, Schumpeter's innovative development model was entrepreneurial in nature when applied to the level of the capitalist firm (microeconomic). It was also an aggregate view of the development process as a whole. In this sense Schumpeter's development dynamics, like Marx's, was dialectical. But it diverged from Marxist disequilibrium dialectics by dint of its long-run evolutionary nature that respected transformations taking place in the capitalist system through innovations causing orderly states. All these developmental aspects of Schumpeter's innovative framework were macroeconomic in nature (Schumpeter, 1971).

The Austrian Economic School, championed by Wicksell, explained business cycles in terms of microeconomic movements (Wicksell, 1934). Market clearance is assumed to exist in all sectors. This is a microeconomic

phenomenon. Besides, interest rates are seen to be sensitive to both aggregate saving and investment. But at the microeconomic level too, changes in the interest rate are determined by individual reactions of the saver or investor. Thus microeconomic forces are used to explain the effect of the interest rate on business cycles. In this way the Austrians tried to explain macroeconomic phenomena by means of microeconomic forces.

Neoclassical economic theory does not differentiate between the attributes of the firm-specific production function and the aggregate production function. Besides, both these factor markets are found to remain in full-employment equilibrium. Consequently prices always equilibrate and stabilise. Optimality in profit maximisation, output and revenue are then assumed to exist in the same methodological way at both the microeconomic and the macroeconomic level. This is a logical consequence of the kinds of methodological individualism, independence and non-interaction – and consequently lateral aggregation – that persist in these systems. It is also seen to occur pervasively in economic institutionalism, welfare economics and utilitarianism in one form or another, starting from Aristotelian thought to its emulation by Kant and the occidental social and economic schools. Although the Austrians, for example, tried to explain the microfoundations of macroeconomic theory as an important epistemological originality in economic thought, this failed to address the more important central issue, that of a *process* framework of change and evolution of the economic and social order.

Keynes' Macroeconomics and the Ethico-Economic Question

Keynes can be said to have been the first to provide an aggregation methodology that was not premised on lateral aggregation (O'Donnell, 1989). Keynes' economic interests lay in explaining the nature of aggregate variables brought into macroeconomic analysis exogenously by the action of the state in the midst of principal economic activities. These economic variables were consumption, savings, investment, output, income and wages, labour, employment and price level. The non-lateral aggregation of economic variables led Keynes to conceptualise his general equilibrium system that interlinks the labour market, the product market and the expenditure and monetary sectors through a circular causality that is continuous and ceaseless. The linking variable in this general equilibrium dynamics is the price level, which has a tendency to be inflexible in the short run, unlike classical and neoclassical prices, which are assumed to be flexible. Hence Keynesian general equilibrium, unlike Walrasian general equilibrium, inherently accepts the underemployment of resources.

Since price inflexibility is the result of institutional forces and household behavioural responses to average and marginal propensities to consume and save, therefore, social, psychological and institutional forces are combined with economic forces to explain the meaning behind underemployment equilibrium. Thus Keynesian general equilibrium brings into existence a whole gamut of social factors that interact with purely economic ones.

Among these numerous interacting factors is the ethical one. Keynes, moved by G. E. Moore's *Principia Ethica*, wanted to see economics transformed into a handmaiden of ethics in the social order (Moore, 1903). His expenditure sector model thus carried government expenditure into productive social activities. This in turn was assumed to generate multipliers and to shift the underemployment of output and resources into full employment levels, as determined by the condition of sustainability between price level and output. By attempting to achieve this interactive complementarity between spending in socially productive directions as an ethical instrument and price stability for maximum effectiveness as an efficiency goal, Keynes was trying to inject a profound epistemological meaning into economic analysis. This was one of the interactions arising from global complementarity between economic, political and social forces. In addition, price stability in Keynes' system required low interest rates to prevail. This would add to the growth of investment and the independence of the aggregate savings function from the interest rate – tenuous at best.

Keynes would indeed have liked to see the interest rate reduced to zero in order to attain the maximum income multiplier effect (Keynes, 1930). A low interest rate in the Keynesian liquidity trap was a methodological necessity, and it addressed the ethical question of distribution as well. It showed that Keynes believed there should be an intrinsic relationship between ethical and economic forces in the market transformation process.

Where did Keynes' ethical orientation towards economic functionalism fail, indeed fail so badly that his general equilibrium system fell into disfavour in the face of the inflationary run-off of the 1980s? The problem of Keynes' ethico-economic synthesis arises from the absence of an ethical perceptor as a decision maker in the economic system. Keynesian macroeconomics does not permit such a micro-level ethical presence. Thus even if governments are entrusted to carry out the socially desired spending function, the microeconomic preference relationship as to what must constitute the ethical menu of government spending does not appear in such an aggregate spending menu.

As a result of this ethical incompleteness and inconsistency in Keynesian macroeconomics, money demand and supply functions assume

most unethical forms. This is not because Keynes would have liked money to do the dirty task – to the contrary, according to Keynes the animal spirit for monetary lure among future generations was 'pathological'. What lends Keynes' money demand function to unethical factors is the persistence of speculation caused by interest rate hedging by holders of money. Thus even the desired low interest rate, followed by its disappearance in resource mobilisation, cannot be attained in Keynes's system. Consequently speculation abounds. Thereby the interest rate, in contradistinction to Keynes' ethical prerogative, becomes a key variable in the investment – supply curve (IS) and liquidity curve (LM).

Consequently the normative claim of Keynesian-type interactive complementarity breaks down. It relapses into a depiction of the hideously unethical consequences of interest rate speculation, inflationary pressure, unequal distribution and uncertainty reinforcing each other. The animal spirit takes over; ethics become impossible in the positive model of Keynes. A dualistic dichotomy is reestablished in the social and economic order.

INFERENCES DERIVED FROM OCCIDENTAL EPISTEMOLOGY IN THE SOCIAL SCIENCES

We may note from the preceding discourse on economic thought that epistemological questions have played the key role in the rise of revolutionary paradigms at every juncture of economic history. In this context it can be inferred that epistemology will continue to play a distinctly innovative role in the rise of revolutionary doctrines and world view in the future as well. The new generation of social scientists, confronted by a new generation of global issues that are embedded in a wide mix of ethical, institutional, political, social and economic forces impinging upon market transformation, must therefore be searching for a new epistemology in social, political and economic reasoning.

Structural Dualism in Occidental Thought

We have also seen in the above discourse that ethical, social and institutional factors remain exogenous to the economic universe. Hence no interactions can be generated among these systems. This dichotomy between economic and ethical factors has led to embedded or structural dualism in the entire socioeconomic arrangement of occidental order. The dualism is structural because, due to its rationalistic perceptions of normative and

positive laws, it is intrinsically entrenched in methodological, behavioural and institutional factors. The result of such structural dualism is that this remains persistent throughout occidental social and economic history, in spite of the good intentions that many social and economic thinkers have given to the humanistic alternative.

In this dualistic milieu, if we are to view market transformation as a general ethico-economic equilibrium process, then many deficiencies remain in occidental approaches to ethico-economics. For a start the epistemological premise is incomplete, as individuated reason defines the randomness and uncertainty of change. In terms of Kantian terminology, practical reason is made to stand out distinctly and causally relate with pure reason (Friedrich, 1977). Although the latter is assumed to exist it becomes dysfunctional, thus leaving the Kantian-type 'practical reason' alone to act upon socio-scientific reality.

The structural dualism of occidental social and economic epistemology also means that the tripartite relationship between freedom, natural liberty and moral laws remains endogenous in this order. However, within this circularly established structure of an embedded tripartite relationship there is a structural exogeneity of ethics. This signifies the impossibility of ethical endogeneity in the total occidental order. The situation can be explained by means of Figure 1.1:

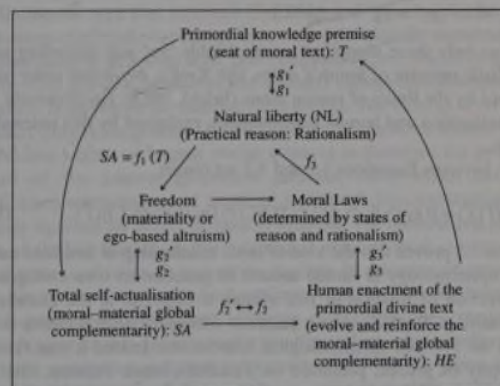


Figure 1.1 Tripartite relationship, structural dualism and endogeneity of structural dualism

With the above mappings being self-explanatory in Figure 1.1 we derive

$$SA = f_1(T); HE = (f_2 \cap f_2') \circ f_1(T).$$

From these we generate the recreative process (RC) in the *Tawhidi* order: $RC = (f_3 \circ (f_2 \cap f_2') \circ f_1) [T]$.

These processes are further interconnected with the inner Smithian process to form the globally interactive process ($INT(T)$), as follows:

$$\begin{aligned} INT(T) &= (g_3 \cap g_3') \cap (HE) \circ (g_2 \cap g_2') \cap (SA) \circ (g_1 \cap g_1) [T] \\ &= [(g_3 \cap g_3' \cap f_2 \cap f_2') \circ f_1 \circ (g_2 \cap g_2' \cap f_1) \circ \\ &\quad (g_1 \cap g_1)](T). \end{aligned}$$

By linear approximation in f_1 and g_2 , we can write

$$INT(T) = (g_3 \cap f_2 \cap f_2') \cap (g_3' \circ g_2' \circ g_1') \cap (g_1 \cap g_2 \cap f_1) \quad (1.1)$$

This process of compound mapping is totally premised on *Tawhidi* epistemology, T .

Conversely, in the Smithian case, which is premised on the epistemology of natural liberty, NL , the compound mapping is

$$S(NL) = (g_3' \circ g_2' \circ g_1') [NL] \quad (1.2)$$

Note that only these mappings are applicable, because according to the rationalistic premise of Smith's order, like Kant's, the divine order can be explained by the limits of reason alone (Infeld, 1963). Consequently both self-actualisation and human enactment are explained by this rationalistic premise.

Now, between Equations 1.1 and 1.2 we obtain

$$INT(T) = [(g_3 \cap f_2 \cap f_2') \cap S(NL) \cap (g_1 \cap g_2 \cap f_1)](T) \quad (1.3)$$

Equation 1.3 proves that the kind of inner relationship in Smithian natural liberty epistemology is turned around to generate its own endogeneity. The direction of rotation of this system is opposite to the knowledge-endogeneity of *Tawhidi*. Hence Smithian concept of natural liberty is contrary to the *Tawhidi* epistemological foundations. Indeed it was *Farabi's* philosophy of justice, premised on *Tawhidi* cosmic balance, that later influenced the thinking of Thomas Aquinas on natural liberty and just law (*jus divinum*).

The two-way arrows in Figure 1.1 indicate interactions by cause and effect. In the occidental order, only the inner core is operative. This shows the ethical exogeneity of this order. The circular tripartite relationship in the inner core exists in the occidental order. This shows the endogeneity of the ethically exogenous order.

ATTRIBUTES OF THE ISLAMIC WORLD VIEW IN THE SOCIAL SCIENCES

Derivation of the Islamic world view in the social sciences commences from the outer interactive relationship in Figure 1.1. This relationship is subsequently interacted with the inner core. These interactions are shown by the two-way arrows. Now the differentiation between the inner and the global parts of Figure 1.1 disappears. This is replaced by the kind of flow that takes place between the primordial knowledge-centred totality and its induction and regeneration by causality flowing in and out of the inner core. This is shown by the outer two-way arrows in Figure 1.1.

The interactive and integrative action of the flows depicted in Figure 1.1 means that there is global complementarity in the knowledge plane. This defines the endogenous nature of this process. Such a world view acknowledges the fact that there are humanly created perceptual orders of the occidental type that establish their own endogeneity of processes in their states of ethical exogeneity. Thus out of the globally complementary, process-based world view arise two comprehensions. One is of essential reality – the globally interactive and ethically endogenous processes. Such a process is shown by the outer circular arrows. The other is of error – the ethically exogenous processes. This is shown by the inner arrows.

The key axiom of Islamic social sciences is therefore the primordial nature of the knowledge-centred premise, from which its unique 'unification epistemology of creation' is derived. This unification epistemology signifies the divine essence of creation. The oneness and absoluteness of God is treated in this primordial state of total creation as the completeness of unity. It accepts no dualism in any state of comprehension. From the oneness and absoluteness of God emanate the Divine Laws, which present all functional relations comprehending creation. The various parts of this creative order are themselves wholistically unified. Thus the normative and positive aspects of the Divine Laws are integrated in the premise of divine unity in order to explain reality. These Divine Laws carry content and context in terms of the injunctions of the

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fundamental epistemological texts, the *Qur'an* and its explication, that is, its interpretation and practice by the authentic traditions (*Sunnah*) of the Prophet Muhammad. Between *Qur'an* (normative) and *Sunnah* (normative and positive) the normative and positive aspects of the Divine Laws are unified to yield knowledge as interaction, resulting in integration followed by evolution (Choudhury, 1993b).

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While the perfection of the unified limit of creation and its systems is primordially axiomatic in the Islamic knowledge-centred world view, its functional nature in the real world is derived from and reinforced by flows of knowledge premised on that unified epistemology. This subsumes both the moral and the material understanding of creation. Thus the interactions between the inner and outer parts of Figure 1.1 denote the processes whereby knowledge is primordially endowed and then functionally derived for application in order to understand total reality. This stage shows the continuous process of minute interactions that go on in the universe to establish complementarity between material entities by means of the knowledge input and its creative regeneration. In this way moral-material complementarity is established. The result is the end of dualism in every form. This is affirmed by the oneness and absoluteness of God and by the manifestation of the Divine Laws as premised in global complementarity, enabled by unification epistemology and applied to the real world in the essence of the divine attributes.

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The moral laws enabling such moral-material global complementarity and the end of dualism constitute *Shari'ah*, the Islamic laws. Yet because the flows are incessantly interacting between the primordial completeness and human enactments of this is real-world situations, the *Shari'ah* evolves continuously along knowledge flows. This process of attaining flows of knowledge from the primordial text and applying them to real-world situations, is called *Ijtihad*, which denotes the essence of the interactions taking place through the Islamic institution of universal consultation, called the *Shura*. Indeed the *interrelationships of global interactions* (consultation) causing extended complementarity, constitute what we will call here the *Shuratic process* (Choudhury, 1990).

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The interactions that emerge from the *Shuratic process* are simulated to lead into a consensus or agreement. Beyond this Consensus State, ever more of the similar types emerge, as knowledge continuously evolves, affecting higher levels of evolution of *Shari'ah*. The consensual state is said to be *Ijma*. In special cases, but not as a rule, an internationally accepted Islamic learned person called a *Mujtahid* can enforce a particular rule. This process is called *Qiyas* or analogy. *Qiyas* may be understood as an authoritative ruling in a state of extreme necessity and remains

conditional on the presence of a knowledgeable Islamic personality who is publicly acclaimed by the Islamic world (*Ummah*).

The attributes of Islamic methodology in the social sciences having been explained, the following questions are now readdressed within the Islamic social science framework. Are society and markets ultimately driven by Hobbesian selfishness, Smithian individualism and Kantian structural dualism? Are institutions dysfunctional in scientific theory or are they capable of causal interrelationships of an essentially unified nature, establishing the moral and material order?

In answering these questions from the perspective of an Islamic, knowledge-centred world view, we see that the Islamic approach is based on a system of social, economic, political and institutional interrelationships that, being premised on the primordial text of unification epistemology, are inculcated from the whole gamut of factors underlying change. Such change comprises knowledge induction, behavioural development, identification of consumption, investment and production plans, institutional change, laws and legal systems and socio-political interactions, which combine to set in motion the Islamic world view.

On the methodological side, models of markets now become process models of intersystemic realities. The process is understood scientifically. That is, it is derived from the orientations provided by unification epistemology. In the end the possibility of social consensus and evolution makes the process universal in appeal. The same process through its interactive essence, conveys the contextual universality of the Islamic world view. Through this total realisation of the structural and instrumental unity of the Islamic world view, market transformation becomes a reality within the framework of moral-material complementarity.

CONCLUSION

The historical process of creation and affirmation in the socio-scientific universe is a persistent struggle between the forces of methodological individualism governed by Eurocentric hegemony on the one hand, and the unified world view of reality within the Islamic framework on the other hand. The occidental order is historically proven to be axiological in its continuous and intensified convergence to an individuated world. The Islamic order presents a wholistic world view attained through the process of interactions and integration that emanates from and reinforces the fundamental knowledge-centredness of the universe and all its systems. This conflict between process and independence, between consensus and

individualism, between marginalism and global complementarity – in fact between truth and falsehood – will continue to represent the dialectics of change. Market transformation will have to be studied in the midst of these realities, keeping in mind the richness of the globally complementary, interactive-integrative world view that is offered by Islam as opposed to the mechanistic occidental models.

World view versus perception, this is the ultimate search for reality (*Al-Haqqa*). Perception defines rational inquiry roaming randomly across diversity that is empowered either by individualistic or institutional hegemony. Perception is cognitive and hence always differentiated. Bergson calls perception the lowest level of the mind, mind without memory (Russell, 1990). When perceptual epistemologies, theories and consequential behaviours and institutions are activated to delineate reality, we have perpetuation of random differentiations marking the rise of global uncertainties. The market as a system of exchange and exchangeables, as Boulding called it, becomes a powerful instrument to perpetuate the perceptual orientations so construed (Boulding, 1972).

'World view' means a unified comprehension of the universe and all its subsystems. But far from being an empty cosmic concept of holism, the Islamic world view assumes meaning in the creative order of evolutionary knowledge interacting by circular causality with the material order. Such continuous and creative flows of knowledge establish cause-effect interrelationships with the primordial text of divine unity, the most reduced and unified reality that can be. Markets in this unified order become a system of exchange and exchangeables that are cognitive creations of knowledge flows.

Thus the market transacts not goods but knowledge. Material forms are the intermediate results of knowledge impacts. In this way, social contracts are described by the knowledge-centred laws of exchange and exchangeables rather than those of fetish goods and services of the ethically neutral, ethically exogenous or unethical market order.

2 The Framework of Islamic Methodology in the Social Sciences

The principal objective of this chapter is to formalise the context of Figure 1.1 (hence Figure 1.1) by bringing to bear the details of unification epistemology (*Tawhidi* epistemology). In this formalisation some of the earlier terminologies will be invoked in their substantive sense: the concept of world view as opposed to paradigm and perception; the concept of process as opposed to reductionism and the mechanics of independence and methodological individualism; and the concept of global complementarity as opposed to marginalist substitution.

WORLD VIEW

The precept of world view arises from the premise of unified creation centred on the evolution of knowledge by cause and effect, established between the absolutely unified and irreducible origin of reality and its anthropic comprehension by means of temporal flows. The world view is realised by its axiomatic enunciation of unification as an irreducible reality and by the interactions and integration between processes in the experiential world on the basis of the axiomatic premise. Thus the world view is intrasystemically premised by cause and effect in unification as the axiom. It has evolved axiologically across continuity and creative order by means of regeneration of the unification design. In every phase of such evolution, knowledge production, interaction-integration and evolution by similar convergence, remain endemic to the unifying process (Chittick, 1989; Choudhury, 1994).

PARADIGM

Paradigm is a sudden shift out of normal science into revolutionary thought (Kuhn, 1970). This is brought about by a discursive shift in the dialectics of knowledge formation and is perpetuated by the loyalty of

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those who form the scientific research programme centring around the paradigm. The presence of institutional power in the formation of the scientific research programme does not render down all scientific pursuits into necessary truth statements. In the history of both occidental and Islamic scientific inquiry it has been found that the pursuit of esoteric sciences has often dimmed objectivity. Ghazali is known to have taken exception to this on the part of early Muslim mathematicians (Berggren, 1992).

In the history of scientific thought one finds Holton mentioning private and public science (Holton, 1975). In the latter case, governments deliberately promote a particular culture of scientific research. In the former, private groups promote scientific thought. An example of the latter is the colonial powers' deliberate programme to sustain research in armament development, although this has proved to be cumulatively destructive to humanity and the environment. An example of the former is the Vienna Circle, which met secretly in Germany during the second World War to develop their own scientific ideas in isolation from Hitler's dominant views of approved scientific research.

Paradigm by its very definition is a limited temporal phase of effectual thinking. In this sense it may or may not be outside the dominant pattern of thought, although the shift is powerful enough to define impact through new knowledge. In occidental scientific history, every major new way of thinking has proved to be a paradigmatic shift. This is due to the ever-changing nature of human perceptions and rationalism that remains the dominant epistemology in the inner core of Figure 1.1. This has remained to date central to all scientific evolutions.

In this sense relativity physics is a substantive departure from Newtonian mechanics but not a departure from the dominant occidental view of an optimal universe attained by substitution and conflict in the processes of change. In relativity physics optimality of process took the form of the optimal world-line of time-space structure; substitution and conflict between forms took the form of differentiation between the macro-cosmic (relativistic) and micro-cosmic (quantum) views of the universe; and there has been no unification of these to date (Skinner, 1969; Kaku and Trainer, 1987). On the other hand Faraday's discovery of electric charge was revolutionary, but it was within the particle description of the Newtonian universe.

In the sense of continuity of paradigmatic processes within the dominant purview of occidental epistemology, Kuhnian structure of revolution becomes embedded in Popperian legacy of the open universe conjecture (Popper, 1965). In Popper's moment-to-moment instability and continuous

evolution by falsification of scientific processes, no paradigmatic shift can hold for long. They must collapse into a space of affine science. This is the idea of a scientific pattern that describes change by the inherent structure of instability in paradigmatic shifts. It thereby becomes a structure (or affinity) of scientific evolution (Nagel, 1961).

Consider what would happen if any one path of scientific evolution permanently diverged from the normal path of falsification. In a Popperian world that path will form a separate dominant universe of its own and falsify the older path. The two could not coexist in such a falsifying conflict. If they did, the principle of falsificationism would be annulled.

Hence Kuhnian paradigms transform into normal science in Popper's universe. Popper's falsificationism gives momentary power for the emergence of Kuhnian paradigms. This dual problem of scientific methodology points out that there is no substantive break in the Kuhnian concept of scientific revolution from the normality of occidental scientific epistemology. Such temporal revolutions are then simply bubble universes collapsing into the dominant convergent universe. This convergent universe defines the structure of occidental scientific revolution as a continuous system of conflict with a uniquely prescribed dominant epistemology, within which it abides. This is also the idea of convergence and hegemony in the occidental domain. It must logically imply that according to Popperian *vis-à-vis* Kuhnian scientific epistemology there can be no paradigmatic shifts, and thus no possibility for fundamental knowledge. Such a knowledge is that which is generated by unification epistemology on the basis of its most irreducible and most unified axiomatic domain. Paradigms in the Kuhnian sense are therefore instruments of power structure intensifying the dominance of scientific culture. They are unstable in the Popperian sense.

PERCEPTION

The concept of perception taken up in the context of paradigm is one of cognitive sense invocation to realise and interpret experiential content. Perception is thereby premised either in a Kantian-type *a priori* state of practical reason, which in turn creates *a posteriori* sensations; or it is premised in Humean types of ontic categories (Wolff, 1973; Hume 1992). But from the method of philosophical discourse one knows that the Kantian and Humean ontologies are disjointed from each other. While Kant's categorical imperatives for reality reside in the *a priori* domain of practical reason, and in this the empirical (*a posteriori*) domain has no power of its own to create originary knowledge; Hume's originary

knowledge is premised on the empirical world. This pervasive disjointness in scientific thinking conveys in part the nature of structural dualism in occidental thought (Seidler, 1986).

Consequently it matters significantly from where perceptions arise. The question of religion within the bounds of practical reason leads to a normative perception of God of the Kantian type. God then becomes an individualised perception. Such a perception invokes the spirit of being but one that has no practical manifestation in life except motivation in individuals and a guidance for socially formulating the moral law. In this way the social activity emanates at the level of morally collectivised individuals who are all motivated by their combined perfect perception of the moral law, to the extent that such a state can be formed within practical reason. Kant's moral law then remains independent of the pure *a priori* domain where God's munificence resides. (Paton, 1964; Acton, 1970).

For Hume the question of God and religion as perceptual forms emanate from the realm of cognitive materiality. This is also the nature of logical positivism, which was so ardently championed by Descartes and Bacon and later lamented by Husserl (Garber, 1992; Bacon, 1960; Hammond *et al.*, 1991).

In both the Kantian and Humean concepts of reality, multiple dualisms intersect each other by cause and effect. There is dualism between the notion of God in Kant's pure reason and practical reason. There is dualism in the perceptions of collectivised individualism and in the formistic perceptions of the Humean universe. Finally, among these there is dualism between Kant and Hume. With all these pluralisms, the concept of perception becomes a product of dualism.

In all these epistemological quandaries of occidental thought, the concept of paradigm and falsificationism enters as an instrument to sharpen the premises of perception and dualism. For if paradigm is predominantly reason-centred, it must stand for a powerful affirmation of perception in the paradigmatic school. In Popper's empirical emphasis, paradigms lose their power in the midst of pluralism, and this is of Humean content.

THE CONTRAST BETWEEN WORLD VIEW AND PERCEPTUAL PLURALISM

In the concluding part of Chapter 1 and Figure 1.1 we noted the distinctly divergent paths of the concepts of world view and pluralism. Now, along with the concepts of paradigm and falsificationism given by Kuhn and Popper, respectively, the unification process leading to the world view must represent the evolutionary path in the form of an integrated bundle of

knowledge caused by prior sequences of regenerative interactions in the *process*. The substantive difference between such a scientific process and the Popperian view is that of social consensus caused by interactions as opposed to conflict. The present must affirm and revise the past if on when the path of evolution is knowledge-centred (unifying). It must reject the past when the path of evolution is not knowledge-centred (individualism and pluralism). It should be noted that pluralism here does not mean a diversity of alternatives. Indeed there must always be diverse ways and means towards unification epistemology in the sciences. Rather pluralism as an extension of methodological individualism and dualism is an attribute of randomness that denies the possibility of axiomatic validity and creative emergence from the root of unification epistemology.

The concept of world view is substantively different from that of paradigm, because the sheer reason-centred structure of scientific revolution is now replaced by the primacy of the divine writ – the epistemological axiom of a perfect, irreducible unified state of reality. Hence reason is both the cognitive creation of the unified, knowledge-centred origin and an instrument to confirm that original substance through the process of unification and evolution along the creative path.

THE NATURE OF CONVERGENCE IN WORLD VIEW

In the concept of world view presented above in the critique of the Kuhnian concept of paradigm, Popperian falsificationism and perceptual pluralism, there is always a convergence into a dominant epistemology – the unification epistemology. But this dominance is not premised on humanly differentiated, reason-centred, order-causing perceptions. Rather it is premised on the divine writ, which is not humanly created but only actualised, interpreted and applied along the path of advancing flows of knowledge enabled by the cognitive consequence of reason emanating from the seat of unified perfection. This structurally embedded feature of the concept of world view enables a permanent possibility for consensus to exist along the evolutionary path. Such sequences of consensus points (socio-scientific contracts) describing the evolutionary path of the world view arise from interactions, which in turn describe explicit socio-scientific processes (Giddens, 1983).

The contrast between the concepts of world view and perceptual unities created by paradigmatic shifts and falsificationism is shown in Figure 2.1. In this figure P_i , $i = 1, 2, \dots$ denote differentiated perceptions, all being functions of socially collectivised individuated reason denoted by

$R_j, j = 1, 2, \dots$, denoting levels of differentiation across varied socio-scientific systems. Two possibilities exist.

First, $P_i(R_j) = Q_{ij}$ is a point in Kuhnian space of socio-scientific paradigms, if and only if at least one of the sequences of Q_{ij} becomes independent of the others. Thereafter a new and disjoint paradigmatic path is generated, denoted, say, by $Q'_{ij}, i, j = 1, 2, \dots$

Second, Q_{ij} is a point in Popperian space of socio-scientific systems, if and only if Q'_{ij} is momentary. This belongs to the space of falsified doctrines. Only a new paradigm, say Q''_{ij} , remains disjoint from the previous ones temporarily; $j' > j = 1, 2, \dots$. Hence Popperian space admits of no disjointness with respect to falsificationism.

Third, in the concept of world view, Q_{ij} is extended by the primacy of revealed law (divine writ). Let this be denoted by R^* . The absence of i, j in

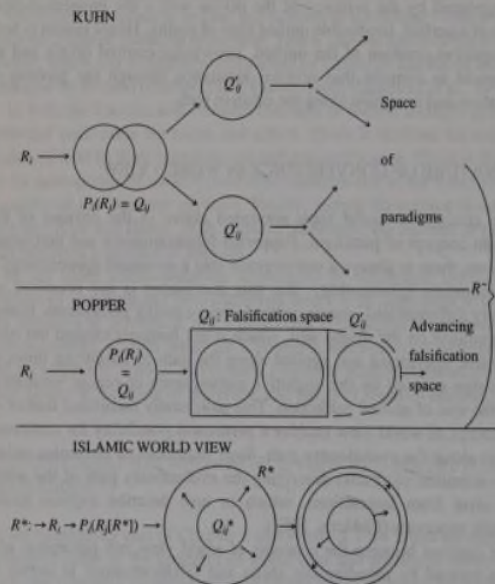


Figure 2.1 Contrasting domains of perceptual pluralism and world view

it means that R^* remains undifferentiated. Now $Q_{ij}^* = P_i(R_j[R^*])$. Because of the primacy of R^* the intersystemic convergence premised in R^* is enabled. But R^* differentiates out de-knowledge, denoted say by R^- . By de-knowledge we mean the premise and consequences of dualism, pluralism and the resultant methodological individualism.

Just as all unifying alternatives interact, evolve and integrate along Q_{ij}^* , all pluralistic, perceptual processes interact, evolve and integrate along R^- , creating divergences of conflicting regimes in Q'_{ij} and Q''_{ij} . In the case of Q_{ij} the bubble universes progressively coalesce.

ISLAMIC METHODOLOGY ARISING FROM THE CONCEPT OF WORLD VIEW

The concept of world view will now be used to explain the methodology of Islamic social sciences. Unification epistemology now translates into *Tawhidi* epistemology. It comprises the most unified and irreducible totality or absoluteness of knowledge. We call this the *stock of knowledge* (*Al-Ilm*) because of its singularly optimal and thus unchanging nature. In *Qur'anic* terminology it is equated with the essence of the *Qur'an* known in its terminology as *Lauh Mahfuz*, *Umm al-Kitab*, both meaning the primordial fountainhead of perfect knowledge that is at once the essence of God as unity, truth and the perfect essence of the divine writ (Ali, 1946a). In this sense therefore, primordial knowledge stock means God as unity = *Lauh Mahfuz* = truth = divine writ = stock of knowledge. Let this primordiality be denoted by K .

The emanation of creation occurs from the roots of K . Creation is essentially functional flows of knowledge, denoted by k , derived from K . But k is determined by the degree of effort required to comprehend K . Such an effort is an interaction caused by the primordiality of K , which then leads into anthropic possibility with the cognitive appearance of reason. This in turn creates all cognitive forms. Hence all forms of cognition, including reason, arise from the primordial stock, K .

In *Qur'anic* terminology the cognitive forms, when understood as inductions of K , become material representations of K through flows k , depending on the degree of effort required. Such creations are termed 'the signs of God' (*Ayat Allah*) in the *Qur'an*. The relationship between K and k that leads to the realisation of the *Ayats* is composed of divine writs (laws), called *Sunnat al-Allah*.

The next character of k is its evolutionary nature, that is, k is both caused by and reinforces the comprehension of K . This intensification of

comprehension as effort causes higher degrees of k to occur. Such a phase of knowledge evolution marks the progress towards understanding and applying the divine writ to the cognitive order. A creative process is generated. In this process k first generates cognitive patterns, which in turn, being knowledge induced, produce higher knowledge flows premised on the advancing comprehension of K . An evolutionary epistemology of k generated by K and returning to K is thus continuously regenerated. It takes the form of knowledge induction of cognitive forms, followed by its further evolution into higher flows towards a further understanding of K . This represents the creative or reoriginating order in the *Qur'an* and is termed *Khalq-in-Jadid*. By this evolutionary epistemology, new worlds as 'tuples' of knowledge and knowledge-induced cognitive forms are created by cause and effect, all premised on the concept of world view axiomatically prescribed by K (Choudhury, 1994, 1995a).

Through K and k and the tuples of the creative order, the normative domain (K) and the positive domain characterised by the anthropic and cognitive observation revolving around k define the unification between the *a priori* and the *a posteriori*. With such a unification, deductive and inductive methodologies, theory and practice, individual behaviour and institutions, markets and ethics all become circularly interrelated. The end result of such a unification process in the socio-scientific world is a logical destruction of the dualism and perceptual pluralism in Kantian and Humean ontologies (Choudhury, 1993a).

THE ENDOGENOUS NATURE OF UNIFICATION EPISTEMOLOGY IN SOCIO-SCIENTIFIC SYSTEMS

The result of the above methodology of socio-scientific circularity premised on evolutionary knowledge is even more profound. For this type of unification reveals two important essences of the Islamic socio-scientific order that are contrary to all other systems. Unification through knowledge-induced interrelationships, as explained here, means that the principle of universal complementarity must become a logical part of this system (Choudhury, 1993b). This also means that knowledge becomes endogenous in the evolution of systems. For now only knowledge *ipso facto* appears as both input and output in the Islamic order. Cognitive forms become instrumental carriers of knowledge flows into higher forms. The same process of evolving comprehension from and towards K must also mean that a monotonically positive transformation exists between k and its cognitive medium. In other words the satisfaction

gained from the intermediate cognitive forms evolves in tandem with the evolution of k .

This brings us to the affirmation stage, which must both evaluate and confirm the Islamic order. Increasing knowledge flows carrying with them higher levels of satisfaction, certainty, well-being and knowledge production in a unifying universe means that the attributes of the path of evolution in the world view shown in Figure 2.1 are inherent to that path. In the *Qur'an* these attributes (for example creative order, just balance, just purpose, certainty, well-being) arise from the divine writ and unity of K . They ascertain divine unity and the unification process through continuous evolution that reinforces the attributes. The moral and material complementarity in the midst of such evolution form the tuples of creation (Nasr, 1986).

The Islamic socio-scientific order described above necessitates an essentially anthropic (that is, human) presence, for mere normative knowledge cannot generate positive responses. Theory and action, the cosmic order and human involvement in it must combine to define the circular causation and continuity world view of the evolutionary knowledge process. This is the essence of the *Shuratic* process (Choudhury, 1993c). This characteristic of the Islamic world view means that science must be centered in morality that is useful to mankind in realising real goodness. In the absence of this moral worth, purely positivistic science is not an acceptable medium of human betterment in the Islamic world view. Hence, just as the human world responds to the circular unification methodology, its resulting moral-material congruence must prevail in the scientific and technological domains to bring about comprehension and utility of a system that agrees with such a model of knowledge comprehension by the human world. Scientific reasoning, just as the systems of the human world, is thus seen to be framed in the same circular causation and continuity methodology of knowledge creation. They have the same unique dynamics of the *Tawhidi* (unity) world view. This is true in spite of the different types of technical issues and problems that various systems seek to address. Thus while there are intersystemic differences, the methodology of all systems nonetheless remains unique in the framework of this circular causation and continuity knowledge-based world view.

AN EXAMINATION OF MUSLIM LEGACY REGARDING ENDOGENOUS TREATMENT OF *TAWHID*

In both early and contemporary Muslim history there has been a sorry tendency to intellectualise ideas without taking cognizance of two

fundamental principles, namely divine unity and the unification principle. Without these, intellectual efforts cannot be considered to be Islamically meaningful, particularly in the sense of the unified world view. In early Muslim intellectual processes, metaphysical views on the cosmos and society were derived from the Greek legacy, with few exceptions (Nasr, 1964).

In this respect Ibn Khaldun's explanation of societal change was an economic one and was limited to the social proclivities and geographical conditions of his time. The link with the divine order in explaining a science of culture in Ibn Khaldun's work was not a *systemic* one. That is, Khaldunian methodology did not explain values and morals as endogenous dynamics of historical change. By limiting himself to his times alone, Ibn Khaldun failed to derive an abiding philosophy of history premised on the civilisational dynamics of historicism invoked by the *Qur'an*. His reference to cosmic equilibrium and order when explaining cultural change was akin to the Greeks' reference to moral *telos*. God was One, Absolute and True, but his munificence remained outside the active domain of human and scientific actions (Mahdi, 1964).

Ibn Sina saw human reason as divided into active and passive reason (Ali, 1989). Active reason was of the dialectical type and was centred on actualising the ethical purpose of creation. Human knowledge of God was premised on active reason. This also created evolutionary patterns in the cognitive world. Active reason was the product of an active mind. On the other hand passive reason resided in the source of matter alone as an innate substance, not a creative one. In this way, through the function of a dichotomous domain of reason, mind and matter were separated from each other. Ibn Sina thus joined the rationalists of his age and the Greeks of the earlier age, whom he emulated.

In Ibn al-Arabi one finds some good expression of the nature of *Tawhid* in knowledge formation. Yet being a purely metaphysical rather than a scientific delineation of the *Tawhidi* process, Ibn al-Arabi's epistemology becomes inoperative.

Some mathematicians of the earlier Muslim school took to indulging in esoteric exercises rather than using the profound skill of mathematics for human usefulness. Imam Ghazzali wrote vehemently against such esoteric use of mathematics. In fact, with the exception of Al-Kindi, there is no record of Muslim mathematicians using the *Tawhidi* precept in the development of number theory. Yet Al-Kindi was a *thorough bred* exponent of Greek thought (Atiyyeh, 1985).

In contemporary times Islamic economics has overly imitated the mainstream methodology. No new demands, and thus no challenges, have been made in the development of an epistemological breakthrough in

economics, social and scientific endeavour. Even in purely epistemological texts the understanding of knowledge in economics and science has been associated with Drucker-type, information-age, human capital development (Drucker, 1993). 'Humancentricity' rather than the knowledge-centred world views of humanism has motivated some Islamic thinkers and writers. Where the *Tawhidi* precept has been used by some eminent thinkers, such conceptualisation has failed to establish an interactive and integral methodology of the socio-scientific order (Naqvi, 1994).

Only in the last few years has there been a new development spearheaded by fresh thinking in Islamic socio-scientific epistemology and political economy. Ethico-economics is yet another prominent field now appearing in the area of endogeneity of ethical processes in socio-scientific reasoning.

There is no question that Darwinian methodology has long been used in evolutionary economics and evolutionary epistemology (Nelson and Winter, 1982). But all such works are in an area that contradicts the concept of evolution and the interaction-integration of the Islamic world view. With the intensifying interest in unification theory in theoretical physics, the anthropic principle of a conscious universe that learns, and the interactive explanation of ecology, there suddenly appears to be a limitless horizon of potential for a unification epistemology of the natural, social and human sciences (Barrow, 1991; Kafatos and Nadeau, 1990; Breuer, 1990; Choudhury, 1995b).

With the emergence of futuristic scientific developments and analytical methods that enable the handling of large interactive systems by means of computer algorithms, it is now possible to develop such an endogenous, knowledge-based world view and to study the underlying interactive-integrative systems analytically. This could prove that the universal methodology of complementary interactive and endogenous processes remains uniquely embedded in all systems studies (Kosko, 1993). The circular causation and continuity model of unified reality, as in the Islamic world view of pure science, remains uniquely identical in the social and human sciences, irrespective of the different problems and issues that such varied systems address.

HOW TO DERIVE A FUNCTIONAL RELATIONSHIP WITH THE PRIMORDIAL PREMISE

The question to address now pertains to the nature of the primordial 'functional' that emanates from the domain of *K* and gets mapped into the evolutionary domain of *k*. In this way we also link *K* and *k* to the intermediate

cognitive forms that regenerate further flows of k . We will thus explain the inherently interactive and integrative nature of the *Tawhidi* world view.

Because of the numinous quality of K , it is neither possible nor necessary fully to comprehend K in order to establish the following relationship: from the most irreducible, complete and optimal stock of knowledge, k , the tenets of the divine writ (laws) are generated. These epistemologically ground the anthropic comprehension of reality in the process of unification. They provide the relational instruments to realise this unity through the unification process, which now presents itself as relationships and organisational forms.

This fundamental epistemological premise must also be the most reduced one, because reality is inherently simple. In the *Qur'an* this minimality of axiom or the completely irreducible of all axioms is unity (*Tawhid*) alone. Its instrumentalisation in the unification process marks the passage towards the comprehension, application and inferential continuity of the plane of the divine message through the traditions (*Sunnah*) of the Prophet Muhammad. In the anthropic domain of comprehension, the divine message takes the form of laws that are anthropically comprehended in stages and are extended through discourse. In Islamic terminology, this phase of transmission is known as the understanding and application of *Sunnat al-Allah* (divine laws), which constitute the perfect divine laws embalmed in the primordial and numinous stock of knowledge. *Sunnat al-Allah* equates with *Lauh Mahfuz*, the essence of *Qur'an*, with the ways of the Prophet Muhammad (*Sunnat al-Rasul* = *Risalah*).

The primordial functional relationship is thus defined by the normative nature of unity, being presented in reality by the positive–normative nature of guidance given by the Prophet Muhammad, followed by their emulation in the human world. The latter, as a discursive process, evolves Islamic Laws, *Shari'ah*, in stages over space and time. These emanate from the roots of the divine writ and are then given the freedom of *Ijtihad* (discussions as legitimated by the methodology of deriving rules from the epistemological sources). This phase is followed by agreement and consensus, *Ijma*. Thereafter the circular evolution of the same pattern is repeated and refined to earlier rules. This stage is called rule formation, *Ahkam* (Masud, 1984).

THE SHURA AND SHURATIC PROCESS

At the discursive level the consultative institution and process called the *Shura* come into function. The *Shura* is indeed a universal consultative process. Its consultative meaning can be taken at the level of the

institution that facilitates discursions among agents on issues pertaining to the development of *Shari'ah*. It can also mean delineation of the pure process of universal interactions among every kind of entities that are found inter- and intrasystems. A *Shari'ah* rule is therefore not simply that pertaining to the socioeconomic universe, it applies also the interactive processes that underlie the entire socioscientific universe. The *Qur'an* affirms such a world view of the *Shuratic* process when it lays down the method of deriving knowledge from itself (Ali, 1946b): knowledge arises as if from behind a veil. It is so realised by the human and cosmic worlds from the primordial root and by the *Sunnah* of the Prophet Muhammad, which guides the universe towards certainty and well-being.

The *Shuratic* process now means that methodological individualism is replaced by discursively unifying preferences that first lead to and subsequently re-emerge at the end of sequences of consensus (*Ijma*). Such evolutionary convergences occur both either in the human world and by symbiosis in the cosmic entirety and in all its subsystems. Every discursion involving interactions forms a flow of knowledge. Its functional dynamics is enabled by the primordial text (*Qur'an*) and is conveyed by the explication of the Prophetic conduct of life and thought (*Sunnah*). Such evolutionary and consensual preferences are thereafter extended by discursions across the whole range of *Shari'ah* that pertain to evolving springs of issues and problems (*Ijtihad*).

THE CUMULATIVE FLOWS: FROM FLOWS TO STOCK

Next we must explain how the cumulative process of k , along with its cognitive induction, leads to K , as shown in Figure 2.1. The temporal world as premised on knowledge alone is presented by the *Qur'an* as an incomplete domain, for temporal knowledge cannot fully comprehend K , the domain of the most perfect, complete, unified and irreducible stock. Thus every cumulation of k must mean a comprehension and application of the attributes of the world view for knowledge evolution to occur. These attributes were earlier shown to be creative order, just balance, just purpose, certainty and well-being, as these interconnect with each other.

Yet the *Qur'anic* universe is a complete one, for K is shown to be attainable with certainty in the hereafter (*Akhira*). In this sense the hereafter becomes the final and complete domain of perfect knowledge. Thus the functional process of evolutionary epistemology, carrying with it the monotonically increasing well-being levels of the cognitive order, is transformed by the cumulative process into perfection of knowledge and

well-being – *Falah* (supreme felicity), as the *Qur'an* refers to this state. The total universal design premised on knowledge is thus a complete one, although this completeness is not temporally realised, but is realised at the terminal point (*Akhira*) in the same complete state as in the primordial case. That content and context is the unmistakable proof of unity and unification of being (*K*) and form (cognitive order, *X*).

Finally, one would also like to enquire how in each subprocess of evolution *K* influences *k* and how the corresponding cognitions form. Since *K* denotes the primordial stock, it is an immutable axiom in the entire system and appears as the ethical *numeraire*. But *k* is a miniscule part of *K*. *K* thus confirms *k*, and with this the cognitive order comes into being through the functional relationship between *k* and materiality, in the way we have explained above. The attributes of *k* emanating from *K* are said to affirm *K*.

On the other hand, for *k* to confirm *K* the evolutionary knowledge process must be incremental and cumulative. This process is driven by the *Shari'ah* attributes, as mentioned earlier. If we now remove the hereafter (*Akhira*) from this context, the entire purpose and completeness of creation becomes non-existent. The result is Popperian and Darwinian worlds by dint of the open conjectural worlds and randomness of individualism in knowledge formation that so emanate.

Thus the two terminal points – primordial (*Lauh Mahfuz*) and the hereafter (*Akhira*) – establish the equivalence of *K* by means of the cumulative *k* and the latter's cognitive association with materiality. Hence *k* affirms *K* primordially and then in the cumulative sense confirms *K*. This circular process leads the universe to its final cumulative 'completion' in the form of *K* again (Maddox, 1971).

THE NATURE OF DE-KNOWLEDGE BRIEFLY EXPLAINED BY THE TAWHIDI WORLD VIEW

What is true of the nature of evolution of *k* as knowledge and its relationship with materiality and the attributes that bring about the moral-material complementarity, is equally true of the nature of de-knowledge, *k'*, say. The polar difference is simply that, while *k* interacts, integrates and evolves in the domain of the perpetual unification process premised on divine unity (*Tawhid*), *k'* goes through the process of individuation, differentiation, conflict and evolution in this plane. Hence unification is given up for sheer self-interested egoistic dominance, perpetuated from the level of behaviour to the entire complex of social, political, economic and scientific domains.

The history of *k'*, taken primordially in the occidental order, may be premised on temporary unification. This is exemplified by Darwinian categories that remain unified in their original form. But after this originary situation is over, conflict and differentiations lead to mutation and individuation. The subsequent path of evolution is once again de-knowledge, as defined earlier (Degler, 1991).

Thus the origin of both *k* and *k'* remains to be the unique premise. This is the premise of *K*. But since *K* is a complete system, both in itself and with respect to the passage from *K* to *K* to *K* again, both the mathematical union and the complementation between *k* and *k'* and within themselves must be part of the topology of *K*. Hence *K'* (falsehood) as the mathematical complementation of *K* is 'permitted' by the topology of *K*. Such a self-referencing by means of the complementation process between *K* and *K'*, establishes the scale supremacy of *K* in creation. This is explained by the *Qur'an* (Ali, 1946c).

It is outside the scope of this chapter to go into the topological dimensions of *K* and *K'*. But briefly speaking, *K'* primordially has a dimension (a topological measure) smaller in the scale of 10:1. This is a reference to the *Qur'anic* measure of goodness to evil in the scale of 10:1. Accordingly therefore 10 blessings for every goodness and one punishment for every evil (or multiples of 10 rewards for one act of goodness), as truth is increased by imposing punishment for falsehood, according to the *Qur'an*. This numericalism may be taken up in the sense of immensely increasing returns assigned to acts of goodness over the harm brought about by falsehood. The punishment for the latter is 1:1 – one falsehood, one punishment (Ali, 1946d). As creation is completed in the domain of *K* in *Akhira*, so also by cosmic completeness in this sense, *K'* is completed in *Akhira*. But the same meaning of dimensionality here destroys the final state of complete falsehood in the form of *K'*, by the final state of complete truth in the form of *K*. These are derivations of the meaning of *Jannah* (supreme felicity) against *Jahannum* (supreme punishment). The *Qur'an* invokes these states for our understanding of the topologically complete nature of all reality (*Al-Haqqa*).

The above discussion of *K* and *K'* is taken up in the light of the *Qur'anic* meaning of creative completeness, that is, on the two dissociative planes of realities. These are $K \rightarrow (k, x[k]) \rightarrow K$ for truth, where $x[k]$ is the material intermediate form complementary to *k*, and $K' \rightarrow (k', x'[k']) \rightarrow K'$, with similar meanings on the side of falsehood. The process of unification emerging by cause and effect from the evolutionary knowledge plane causes the two paths to become increasingly disjoint. The final position, where creation attains its true reality, is when truth and falsehood become completely disjoint.

However, in the non-*Tawhidi* plane of explanation there is no completeness either primordially or terminally for K and K' . De-knowledge evolves randomly on the plane of rationalistic perceptions and plurality. Hence K and K' are similar, interchangeable or disjoint, to the limits of human determination of the acceptance of either of K or K' on the rational plane. Thus, according to the non-*Tawhidi* explanation, either of the two trajectories given above evolves under rationalistic behaviour. Since rationalistic behaviour is assumed to be premised on self-interest and Hobbesian or Keynesian assumptions of animal spirit in the non-*Tawhidi* order, only methodological individuation can characterise de-knowledge in the non-*Tawhidi* plane. According to this, Islam and the Occident, as distinct philosophies of life and cosmos, are polar opposites, premised on their epistemological roots (Huntington, 1993). Except for some commonality in observation rather than in substance, these two orders give rise to polar comprehension, explanation, application and inference regarding creation in all its details.

IMPLICATIONS IN METHODOLOGY FROM THE TAWHIDI EPISTEME

Such an evolutionary epistemology premised on the *Tawhidi* world view must mean that, since knowledge is never complete but is ever evolving, the concept of optimality cannot be applied in any domain of socio-scientific analysis. Likewise, since optimality is now replaced by interactive evolution, the concept of globally attained equilibrium is replaced by continuously evolutionary equilibria (Grandmont, 1989; Choudhury, 1993d). Such evolutionary equilibria must necessarily exist, since the *Tawhidi* universe is complete between the primordial state and the here-after state. Such consequences have great implications in the rich ethics-market-institutional and ethics-science-society symbiotic relationships that can now ground the inherent forms of the ethico-economic transformation process. The departure from individualism and randomness of sheer reason-based perceptual order of occidentalism thus creates an altogether different world view.

INCORPORATING THE ATTRIBUTES IN THE TRAJECTORY OF WORLD VIEW

The attributes of the *Tawhidi* universe, – just balance, just purpose, certainty, felicity and recreation – are incorporated in the world-view

trajectory in Figure 2.1 in substantive ways. We have already dealt with the creative order, certainty and felicity in the evolutionary phase of the knowledge-centred universe. Turning to just balance and just purpose, we note that cumulation of knowledge in the creative advance lowers uncertainty but increases perturbations due to the existence of knowledge density points. In such dense knowledge sets, multiple equilibrium points must occur due to diversities of processes. Such diverse processes however, all serve the same end of unification of knowledge in the topological universe (Maddox, 1971). The *Qur'an* speaks of such rich diversities arising from the felicitous domain of creation. Perturbations also increase because of inter- and intrasystemic interactions in the dense knowledge spaces. The existence of multiple equilibria with decreasing uncertainty multiplies the process of knowledge advance, which in the moral-materiality complementarity of the knowledge cumulation process means manifestation of the attribute of just purpose. The *Qur'an* prescribes a multiplier value of 10 blessings for every one good act, that is, a unit of knowledge advance. The simultaneous existence of multiple possibilities linked by complementarity in these dense knowledge sets conveys the meaning of just balance.

The concept of denseness of knowledge space is brought out in Figure 2.2. Here the stock of knowledge is premised on divine unity and completeness and is shown as a topology of optimal stock. In this primordial state the following identities hold: optimal stock (the essence of the *Qur'an* = *Lauh Mahfuz*, LM) = K = truth · (T) = essence of divine unity = God. From this stock of knowledge emanate flows of knowledge, k , for the temporal universe and experience. The evolution of k is by means of interaction followed by integration and then further evolution. These phenomena are shown by the emerging systems along the trajectory of the creative order, signifying at every point the knowledge-induced moral-material tuples. The evolutionary process characterises circular causation and continuity on the knowledge plane.

The emergent systems that interact and integrate in the knowledge plane are shown to converge at a limit point, such as A. Furthermore, since such systems interact in a limitless number of global systems by the force and extent of knowledge, a core formation emerges, such as that shown in the interactively integrating system encircling and emanating from A. Such is also the process of formation of the moral-material mathematical 'tuples' in knowledge flows.

Such evolutionary processes finally end in the topology of *Akhira* (the hereafter, K). In this final state the universe is shown to be endowed with the same functional meaning and completeness as in the primordial state.

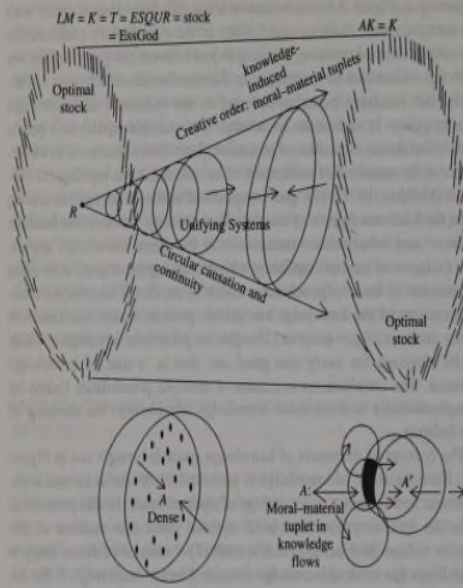
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LM: Lauh Mahfiz; ESQUR: Essence of Qur'an; EssGod: Essence of God

Figure 2.2 Denseness of knowledge space

Hence, $AK = K$. The optimal stock is reformed in this terminal state. The stock of knowledge, K , maps onto the stock itself in *Akhira* through the process of evolutionary knowledge in perpetuity.

In the *Tawhidi* world view the attributes exist in a complementary fashion. If any one of these is debilitated, all the others are debilitated as well since they must remain interconnected. The net result is a slowdown of the whole system. Finally, the attributes are taken up together in the extensively universal sense of *res extensa*. This is further proof of the uniqueness of these attributes and of the pervasiveness of the *Tawhidi* in all systems, irrespective of the different problems they address.

THE UNIVERSAL PRINCIPLE OF COMPLEMENTARITY

The interactive nature of the *Shuratic* process, together with the continuous and creative nature of evolution in the knowledge-centred world view, necessitates complete replacement of the neoclassical marginalist substitution notion by the principle of universal complementarity. It should be noted that in neoclassical economic theory the idea of complementarity between goods and resources is often used in a partial equilibrium sense. Such an idea of complementarity means segmenting bundles of goods into complements of their own type, so that in the economy-wide situation these complementary bundles, when taken separately, can again form substitutes among themselves. Indeed if there are three goods, then two can complement each other to make a substitute for the third. In this way, any number (n) of goods can be made into $n - 1$ number of complement at best, thus making this bundle of complements a substitute for the remaining good. It is therefore absolutely essential for received economic theory to have substitutes. Otherwise there can be no precise definition of the neoclassical concept of utility, consumption, production and allocation of resources. Consequently prices would not be well-defined and the optimisation of profits, utility and output would not be a well-defined concept.

In this way a polar view is established between the framework of individualism in neoclassicism and the pervasively interactive order of Islamic social and economic universe. Furthermore, through the Darwinian extension of individuation, conflict and optimum states, neoclassicism also appears in scientific doctrines, thus carrying the germ of marginalist substitution through all scientific theories. In this way, just as there is pervasive marginalist substitution throughout the occidental socio-scientific universe, so too are there pervasive interactions throughout the Islamic socio-scientific order.

Now the existence of pervasive interactions through the *Shuratic* process, the discursively emergent consensual preferences among agents, and the continuous evolution of this process by cause and effect in the knowledge plane, mean that creation in this order must happen by virtue of the principle of universal complementarity among all entities and systems.

DENSENESS AND THE PRINCIPLE OF UNIVERSAL COMPLEMENTARITY

The Islamic concept of world view, taken together with the principle of universal complementarity and all that this involves, means that the

universe coalesces with the growth of knowledge. Yet even as knowledge advances in this system, interactions and continuity intensify. Consequently any perturbations in the system increase, and punctuated equilibria at every moment of the evolution, become dense along the knowledge-centred trajectory of moral-material tuples in the world view shown in Figure 2.1.

The entire system now becomes complex. However such systems can be made tractable by considering subsystems and linking them up incrementally as knowledge proceeds and transmits across an increasing number of subsystems within the total system. Methods of managing such a progressive treatment of subsystems within the entire system can be found among simulation, perturbation methods, fuzzy logic, bargaining games with incomplete information and stochastic control, among others (Casti, 1990).

THEORY CONSTRUCTION IN THE ISLAMIC FRAMEWORK

Theory construction in the *Tawhidi* world view is shown in Figure 2.3. It commences by defining the axiomatic foundation of the primordial stock of knowledge, which textually establishes the meaning of unity (K) and unification (k). This axiomatic foundation is also the unification epistemology of the *Tawhidi* world view. The functional relationship, whereby k is derived from K , is built into the axiomatic foundation. From the groundwork provided by the exercise of knowledge arises a sequence of possibilities for enacting *Shari'ah* rules to address the unified methodology premised on K and addressing issues (k , X). X denotes material consequences of k in the chain of interrelationships between moral and material events.

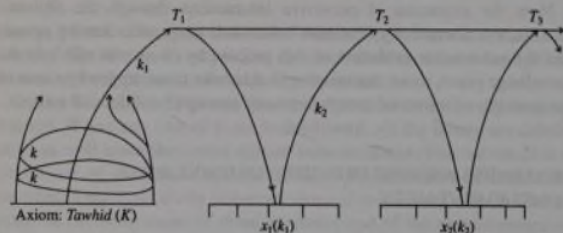


Figure 2.3 Theory construction in the Islamic world view

When such k 's are formed, discursions in the *Shuratic* process lead to the consensual emergent preference for k . This is denoted by k_1 . The choice of k_1 is then tested to establish the cognitive results in the real world using the whole gamut of attendant instruments emerging from K and k_1 . This is shown by $X_1(k_1)$. Creation and continuity suggest a regeneration of fresh knowledge flows (k_2). If k_2 does not carry the appropriate potential for Islamic transformation, the system reverts to any other of the possible emergent bundles arising from K , and the process continues until an appropriate process is found and then perpetuated, as shown by the progress of $T_1T_2T_3...$

The path, $T_1T_2T_3...$ denotes a unique theory construction in its epistemological context across all systems, as denoted by knowledge-induced entities such as $X_1(k_1)$, $X_2(k_2)$ and so on. We also see that this theory is enriched by the combination of normative laws (K), positive laws (k) and the observations so capacitated (X 's).

One can contrast the theory construction in Figure 2.3 with a similar one suggested by Einstein (Holton, 1979). In Einstein's scientific theory construction, the axiomatic premise is changeable to the extent of anthropic differentiations that are caused by perceptual pluralism of the observer. The rationalist observer and his perceptions then become the ontological premise of Einstein's scientific theory construction. The result is an ever-changing sequence of responses signified by the k 's and consequently the X 's. Thus differentiations in epistemologies become endemic to physics – as, for example, between an epistemology for classical mechanics, one for relativity physics, one for quantum mechanics and yet another for grand unified theories (GUTs). Unification in the sciences thus turns out to be impossible (Weinberg, 1992).

In the Islamic framework the axiomatic premise remains unchangeable, that is the *Tawhidi* epistemology is the most irreducible, most unified and complete origin of knowledge and it applies universally to all systems. Consequently it is easier in Islamic socio-scientific order simply to change k 's by choice or consensus, forming a paradigm. It is contrary to *Tawhidi* epistemology to replace this very primordial axiomatic premise.

THE RELEVANCE OF PUBLIC POLICY IN THE ISLAMIC SOCIO-SCIENTIFIC ORDER

The policy context of Islamic methodology in the social sciences can be illustrated by reexamining the role of the attributes in the knowledge-centred institutional framework. The concepts of institutionalism and

institution in Islam centre around the *Shuratic* process and assume meaning by reference to the epistemological text and by the interactive preferences that establish social consensus. The sustainability of an Islamic institution depends on its power to evolve and continue along the knowledge plane. Such continuity is reinforced by evaluation of the social well-being criterion of the Islamic order.

The social well-being criterion can be seen as a quantitative function to evaluate the following states. Are the decision makers in the *Shura* of institutions, polity and science (scientific research programmes) and markets (for example guilds and microenterprises) effective Islamic personalities? Do they have the requisite knowledge of *Shari'ah* and sufficient functional knowledge of modernity to understand and apply existing and new *Shari'ah* rules to complex issues and problems? It is important to note here that high Islamic devotion and knowledge are fundamental attributes of decision makers (*Sharees*) during this initial case and thereafter. It is quite possible that Muslims and non-Muslims, just as all parts of the economy and society, can be represented in the *Shura*. This is because the *Shura* undertakes decision making at the grassroots level with hierarchical interconnections and in a globally decentralised fashion. An example of this open nature of the *Shura* can be found in the case of Chief Justice Cornelius of the Pakistan Supreme Court, who was held in high esteem on matters of Islamic Law in Pakistan.

The knowledge flows, k , emerge and regenerate themselves at this level. In a purely discursive situation it is not necessary to measure k numerically. Rather it is sufficient simply to measure the output of k each time it is produced and regenerated through the institution of *Shura*. In the case of a quantitative evaluative criterion, k can be assigned ordinal values corresponding to the changing Islamic belief process as this is found to externalise itself through interactions and integration at varying levels during the post-evaluation of *Shari'ah* rules (*Ahkams*) in *Shuras*, taken up within the society at large. This is a matter for the statistical department of the *Shura* to undertake, perhaps better still in coordination with independent statistical bodies in the private sector. In Kuala Lumpur, Malaysia, there is one such body, called the Institute of the Mind, that can be made to develop ordinal indicators signifying levels of knowledge attained on the basis of Islamization using *Tawhidi* epistemology (Choudhury and Uzir, 1992).

Values or notions about k are associated with policy formulation and guidance relating to material processes that appear in society and the economy. The policies so formulated address the attributes of just balance, just purpose and felicity. These categories include policies for attaining

equality, fairness, distributive equity, economic efficiency, growth and sustainability in the broadest sense of these terms. The Malaysian Development Plans and Perspective Plan Outline to the year 2020 are aimed at attaining such ethical and economic objectives (Government of Malaysia, 1991).

We recommend that, in the formulation of the development plans, the Malaysian Islamic Centre (Pusat Islam) should be closely consulted. Hence this institution would extend its functions in more versatile directions. In the various private sector Islamic institutions across the world, there must also be micro-*Shuras* to help such institutions identify Islamically permissible economic, financial and other instruments.

Once policy directions are developed in concert with a range of agents across *Shuras*, small and large, the next stage is to apply these policy instruments to real world issues and problems. If for example, income distribution is the goal of a *Shura* policy focused on distributive equity and employment, the economy and society must be persuaded to change their menus of consumption, production and distribution preferences. This might involve a combination of several learning processes: mass education could be employed to reorientate consumption preferences so as to avoid waste. Some developing countries would have to be convinced of the usefulness of appropriate types of basic-needs regimes of development. Production alternatives must then conform with such changing consumer preferences. The financial world must increasingly develop joint-venture and cofinancing opportunities to encourage new venturists to join in. Among these would be those who have capital and those who have labour. The asset less will have their allocation of time. A contractual agreement to share output and revenue would then be established. Many other arrangements of similar types can be thought of.

As for the goal of establishing the attribute of just balance, the material variables to be aimed at cover a broad range, not simply income and employment. Such a vector of variables are augmented by the k variable by cause and effect.

While the attribute of just balance presents the end result of a process of justice and coexistence in the knowledge-centred universe, the attribute of just purpose is made functional towards bring about a positive realization of the moral transformation process. The result is an affirmation followed by confirmation of the Islamic transformation process by the participants in their dealings with issues and problems of the socio-scientific order. The attribute of just purpose is thus exemplified by the readiness of society to accept the moral values out of their acceptance of *Shari'ah* and by being ready to place their trust in this system.

In Malaysia today, the phenomenal rise of Islamic financial instruments and institutions has been due to people's general belief in a more just, distributive and productive system of business transactions. This has led to a confirmation of the transformation process based on their conviction of belief in the Islamic system. The enactment of these business practices has resulted in just purpose being served. This is manifest in the outstanding reduction in the poverty rate, particularly among Muslim *bumiputeras* (target groups) who derive a living from agriculture. The transformation process has also led to racial harmony and asset holding among the once assetless. One example is *Amanah Saham* – poor *bumiputera* asset shares – which today are being floated in Kuala Lumpur Stock Exchange.

The attributes of just balance and just purpose in this way lead to an initiation and affirmation of the moral transformation stage that is based on solidarity and moderation, for otherwise a balanced state would not be attainable. The concept of felicity or social well-being is thus based on moral adherence to the principles of moderation, solidarity and sustainability in accordance with the knowledge premised in *k* and its functional use as mentioned above. One notes that much of the economic growth in the West has been due to excess demand, which has led to debt, inflationary pressures, waste and hedonism, whereas in the Islamic economy and society, as in Malaysia, importance is being placed on the kind of growth that leads to social well-being and a caring society.

Hence the objective of well-being becomes a primary determinant of the appropriateness of growth. A great deal of Malaysia's growth has occurred in conjunction with poverty alleviation, high employment and low inflation. When this is combined with the encouraging results attained from Islamic finances and capital mobilisation in this country, it is found that Islamic attitudes such as consumers' propensities and the growth of Islamic financial instruments are interacting with each other to contribute to overall growth and social well-being.

Finally, the combination of just balance and just purpose, together with the felicity gained from this, brings about certainty among the citizenry. This marks the confirmatory phase of the emergent Islamic order. A great deal of human energy is being mobilised in the interest of an ever-diversifying realm of possibilities brought about by the certainty of gain, social well-being and trust from the realisation of moral-material change. This is exemplified in Malaysia today by the phenomenal increase in the number of Islamic institutions at all levels. Material prosperity combined with proven Islamic attitudes and developmental change in this country means that a good deal of financial support is available for Islamically guided activities.

The last attribute of the *Tawhidi* world view is recreative order and continuity. This automatically follows the confirmation phase. This is the sustainability stage of the transformation process. It occurs at the end of the affirmation stage of Islamic acceptance. Such stage is followed by confirmation that regenerates higher levels of *k*. The evolutionary process continues. The entire process is thus repeated with this higher level of regenerated knowledge flow. The creative order marks the catalysis of change and is logically linked to all the other attributes. In the public policy area it is attainable by human resource development and interactions through the *Shuratic* process for all the issues we have so far discussed.

For a society that is launching a programme of Islamisation, there is no precise starting point in the sequence of attributes. This open-endedness of the process of Islamic change can be understood (1) by the fact that the knowledge-based creative order and continuity creates a continuous, circular process, and (2) that extensive interactions occur among the attributes at subsequent phases of the transformation process. The exact starting point of the attributes is thus indiscernible. The interrelationships between the attributes also show that Islamic financial instruments must remain subject to all possible sequences for appropriate choices. There is no limit to the range of combinations and Islamic choices that can be generated by financial instruments, policies and institutions along the path of evolution of *Shari'ah* with the advance of the *Shuratic* process.

CONCLUSION

What, then, is the precise methodology of the Islamic world view for the socio-scientific order? The answer is found in the epistemological foundations of an intrinsically knowledge-centred universe. Given the details of the world view that is so constructed, the methodology is seen to be premised on a combination of textual primacy, followed by discursive extensions and interactions involving a knowledge induction of the cognitive order. This is finally sustained by a continuously creative process. For all of these to occur, the principle of universal complementarity is required to replace the marginalist substitution seen to be embedded in the entire occidental socio-scientific order. The concept of an optimum system is thus replaced by that of a progressively simulational one in the Islamic order. This legitimates the possibility of applying the *Shari'ah* to a blending of institutions, polity, economy, society and science.

The methodological construct of the Islamic socio-scientific order is based on an input-output function relating to knowledge, the cognitive

order being simply instrumental in this. Hence the Islamic order is logically a complementary moral-material one. Since flows of knowledge derived from and cumulating in the divine stock of knowledge are now neither individualistically perceptual nor collectively random in social dynamics, the input-output relationship yields a final product in terms of positive social well-being, and the growth of knowledge is central to all entities that characterise the conscious universe.

3 Issues in Islamic Political Economy

Why do we need to undertake a study of political economy and not of economic theory in the Islamic perspective? To answer this we will return to the process model of global *Shura*, which is interconnected in hierarchical order across small and large echelons of *Shuras*. In this process model we have seen that purely economic issues are interlinked with a host of institutional, social and political ones that together define the interactive decision making that goes on in the *Shuratic* process. Most importantly we have seen that the knowledge-centred world view characterises the principle of universal complementarity that is inherent in the Islamic world-view model. Finally, this is a model of sustained and continuous evolution that parallels the evolution of knowledge, which is premised on the epistemology of the perfect and complete stock of knowledge, or divine unity. We have called this fundamental epistemology 'unification epistemology' or 'Tawhidi epistemology'.

DEFINITION OF ISLAMIC POLITICAL ECONOMY

These fundamental characteristics of the Islamic epistemological orientation of Islamic economic and social analysis show that there are far more factors to consider in Islamic economic behaviour than are simplistically determined by individualistic preferences, independent agents and institutions. Preferences in the Islamic social and economic order are interactive and are explicitly explained by the underlying interactive process. In light of these characteristics, political economy emerges as the study of interactive forces between economy and society that together determine the final outcome of decision making. Such an outcome is evaluated in terms of the criterion of social well-being, which itself is a compound of the attributes of the Islamic world view: just balance, just purpose, certainty, felicity and reorigination.

Such a definition of political economy, although based on the purview of an interactive examination of varied forces in the economic and social order, configures a universe that is integrated out of interactions. Conversely the Marxist definition of political economy means a conflicting power structure generated by the production and distribution of wealth (Cole, 1966). Although the theoretical foundations of this political

economy were laid down by Marx, its practical manifestations were studied by Bukharin in terms of the conflict between farmers and the Soviet Politbureau's emphasis on heavy industrialisation (Zimbalist *et al.*, 1989).

DEFINITION OF CLASSICAL POLITICAL ECONOMY

Classical political economy is the study of production and distribution of wealth in a civil libertarian society. Although the theoretical ramifications of this school were laid down by Adam Smith and Jeremy Bentham, the political features of the classical school were sharpened by John Locke and John Stuart Mill (Schumpeter, 1954). John Locke's theory of wealth production and distribution is particularly noteworthy as it raises the question of just wages according to output and the limits of private ownership in light of the appropriateness of the production that labour undertakes (Tomson, 1994). We discussed earlier the individualistic nature of all studies of an epistemological nature emanating from the classical school.

In contrast with questions of political economy, economic theory dwells on the topics of price mechanism, exchange, production and allocation of resources that are determined in an ethically neutral venue of market clearance, be this in perfect or imperfect competition. As institutional influences are introduced into the economic model, the predictability of a scientific system is diminished. On the other hand, to exclude these other forces leaves the economic model unsuitable for practical use. Much economic theory has grown around the nicety of scientific analysis rather than around the reality of socio-political life (Myrdal, 1987).

In imperfect competition, although market prices are understood not to reflect the optimal value of economic exchange, the marginal cost of the non-economic (environmental) effects is assumed to be proxied by instruments such as taxes, costs of environment control, facilities and penalties to polluters. Hence some degree of measurability is essential in economic theory at all levels. Strict measurability means that to some extent uncertainties are controllable and predictable. Economic models are thus devised and improved upon to attain such predictability, although the forces that defy predictability are not accounted for in economic models.

KEYNESIAN DEFINITION OF POLITICAL ECONOMY

The economist who came nearest to questioning the validity of market phenomenon in the midst of uncertainty was Keynes. Keynes saw that

statistical probability theory was unable to quantify the large region of subjective probability that inhibits the economic and social universe (Keynes, 1908). Hence Keynes abandoned his treatise on probability theory and turned his attention to *The General Theory*. *The General Theory* was originally a static theory of underemployment equilibrium. If failure to attain full employment is due to forces that do not allow product and labour market equilibria to be attained, then economic preferences cannot be predicted with certainty. Thus in the Keynesian economic system underemployment equilibrium becomes a concept that is affected by forces beyond simply the effect of downward price inflexibility due to the inherent wage-bargaining process arising from cost-push inflation.

Furthermore, in the eyes of the monetarists the expected point of full-employment output and the corresponding level of employment in the Keynesian general equilibrium analysis are highly unstable. According to the monetarists, every reconsideration of a Keynesian full-employment point leads to expectations that blow up the economy along the vertically rising, aggregate output supply curve. In this way, on a generalised basis the Keynesian short-run supply curve gets perturbed by an ever-rising family of vertically rising aggregate supply curves at points of the monetarist's instability. This feature of the aggregate supply curve in relation to the uncertain and shifting nature of full-employment points in the Keynesian economy means that, according to the monetarists, perpetual inflationary fiscal consequences exist in the Keynesian system (Bowden, 1985).

RATIONAL EXPECTATIONS HYPOTHESIS AND POLITICAL ECONOMY

Therefore, whether it be the analysis of markets in partial equilibrium, of prices in the case of market failure or of uncontrollable prices in the presence of expectations, price formation is not explained in economic theory by cognizance of the institutional factors that determine an unstable situation. Economic models are not equipped to deal with an away of problems that bridge economic, social and institutional domains. The best effort to bridge this gap may have been made by rational expectation hypothesisists. To the expectation hypothesisists full-information assumption does not exist in economic predictions. Instead they rely upon an increasing or decreasing information flow over different states of nature, which in turn necessitates corrections to be made for economic observations. Yet the information-adaptation model of rational expectations becomes linear in the error term. Such an error-correcting process is described by a

Markovian process. In its limiting form, the information simulating economic model with Markovian error terms again turns out to be of the linear type. Consequently price increases are internalised in the consumer's spending plans, leaving no anticipated effects to occur in real output. Future spending plans are thus firmly set by the consumer, and hence by the investor (producer) and the government (Chick, 1985; Milford and Peel, 1983)

Monetary growth follows price increase. Hence the real money supply remains constant. The long-run unanticipated change of the economy becomes a steady state. In this state all factors affecting price formation are marginalised to the extent that the uncertainty dynamics in information flow need not be explained.

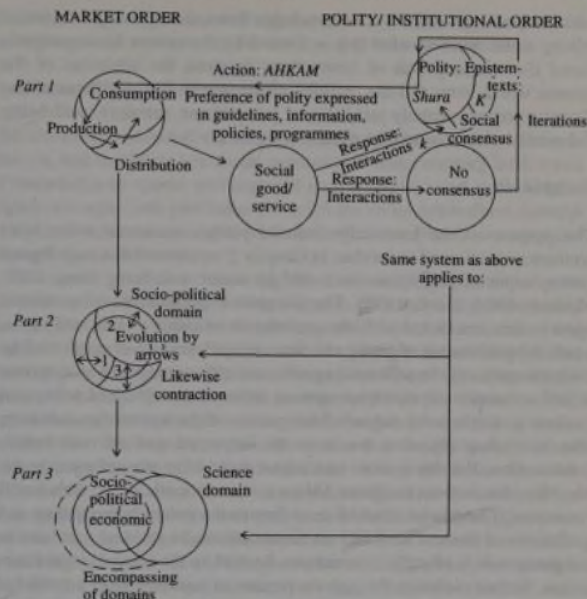
What then is the alternative to subjective uncertainty in the economic model? The political economic approach helps out here, but only if an egoistic world of individualism or a chaotic world of perpetual conflict, disequilibrium and human marginalism in markets is accompanied by new perspectives. The new focus arises both from an epistemological novelty and from a sense of moral need to control the unbridled market, institutional and societal forces. This is where Islamic political economy enters the picture to offer a distinct alternative. The abovementioned interrelationships are brought about by the absence of any assumption in Islamic political economy about the linearity of the knowledge-centred world view and by the creative certainty of the underlying unifying process of the knowledge-based world view. Islamic politico-economic relationships are not based invisible market exchange. Rather, all such relationships are explained by means of human participatory actions. These determine both ethical action as well as their scientific appropriateness and viability for society as a whole.

SIMPLE ANALYSIS OF THE SHURATIC PROCESS

Figure 3.1 illustrates the simple elements of the *Shuratic* process that underlies the methodology of Islamic political economy. (Choudhury, forthcoming). Below we will briefly extend this framework to the problem of pure scientific discourse.

Epistemological Premise

The fundamental epistemology is provided by the text of the *Qur'an* and *Sunnah* (*K*). *K* generates the *Shari'ah* text of *Shura* as polity. This polity



* The activity sets are self-explanatory in this diagram. The arrows indicate the interrelationships between these sets.

Figure 3.1 The simple elements of the *Shuratic* process*

then generates the functional aspects of policies and guidelines for the economy, which we will call actions (*Ahkam* = *k*). Hence preferences of polity in the form of these initial actions are delivered to the political economy in order to transform the principal economic activities, namely consumer preferences, production methods and distributional ways, through interactions with each other. The circular direction of the arrows within these sets implies the general equilibrium context of the economy. This general equilibrium concept must be carefully understood, as explained below. The impact of *Ahkam* on the economic order by means of a flow of knowledge, *k₀* say, generated in the *Shura* brings about a corresponding change in activities, as shown. This means that the economic

variables are augmented by the knowledge flows, thus causing a degree of felicity to be attained, after this is formed by the system having experienced the whole gamut of interactions between the attributes of the Islamic world view and the realities of the world. The attributes of the *Shuratic* process, namely just balance, just purpose, certainty, well-being and creative order, were discussed in Chapter 2.

Social Good

The purpose of the knowledge-induced politico-economic order is to produce a social good or service. In Chapter 2 we showed that such a good is the output of felicity, as measured by social well-being (Sen, 1987; Maslow, 1954; Noor, 1995). The integrative preferences of economic agents when interacted with the preferences of polity – and *vice versa*, when the preferences of polity are thus changed, revised or confirmed by the preferences of the economic agents – complete a response. A response is thus a complete cycle of interactions between the agents of polity and markets to confirm the degree of integration of the knowledge induction that has taken place or needs to be corrected and revised before confirmation. For this reason, two interactive-preference paths are possible. First, interactions integrate *Ahkam* in the economic order; then social consensus (*Ijma*) is established according to the policy prescriptions and guidelines of *Shura*. Otherwise no consensus can be reached – at least in the going rounds of social interactions. Second, in the case of social interaction, further evolution through the process of injecting fresh knowledge in polity by textual reexamination is generated. This discursive process continues until social consensus is finally reached after the required changes or revisions have been made, leading to continuous rounds of affirmation followed by confirmation of a given *Ahkam* in the economic order.

Response: Post-Evaluation

Whatever the state of agreement at the end of a complete interaction after it is post-evaluated by polity, the dynamics of the creative process endowed by discursions causes a fresh and continuous regeneration of knowledge to occur. Creative order is thus functionally induced in the evolutionary knowledge-centred input-output mechanism of creating fresh flows of the social good. Such flows induce the realisation of social well-being. This is the idea of social well-being we mentioned in Chapter 2. Here it signifies that the final product of the input-output of knowledge in

the Islamic socio-scientific order appears as social well-being. Its quantitative value can be evaluated in the *Shura* as a given social criterion.

Dynamics of the *Shuratic* Process

The knowledge-induced social good that is confirmed in the *Shuratic* process, and that leads into social consensus, thereby creating fresh levels of knowledge to appear and augment goods, services and well-being of higher vintages, are particular cases of the most generalised concept of *Ayat al-Allah* – the signs of God in the consciously learning and responding universe.

The agents (*Sharees*) comprising the *Shura* must be persons of great integrity, piety, knowledge and foresight in *Shari'ah* and contemporary issues. The *Sharee* qualities imbibe a sense of justice, motivation and commitment in the Islamic world view. The *Shura* is decentralised within this complex of qualities. The members of the *Shura* come from all the groups in society. Thus all people are represented in this institution. It is not necessary for these groups to agree beforehand on any issue under deliberation. The important point to note is that the *Ijtihadi* spirit and methodology require all *Ahkam* formations to be premised on *Shari'ah*. What is sought is *Ijma* (consensus formation), or occasionally *Qiyas* (analogy). Again *Ijma* may not result in absolute unanimity at a particular point in the knowledge formation process. Yet *Ijma* is always strived for in the long run (Abdallah, 1985). As explained in Chapter 2, the membership of the *Shura* (*Sharees*) may in exceptional cases include non-Muslims, given the qualifying requirements for members.

Some viewpoints and interactions relating to human ecological factors tend not to be addressed by the decentralised representatives in the *Shura*. These missing factors must nonetheless be considered. They thereby give rise to continuing discourse between polity and the market order. The ongoing discourse results in responses generated from the side of market to the *Shura* just as their are reactions from polity to market in the knowledge entered process of interactive preferences. The process of the market in this sense is thus not conducted according to an 'invisible hand principle', for responses arise from an array of processes, as shown in Figure 3.1, that are dispersed across the entire gamut of social and economic life. In the economic world, for example, consumers can express their responses through consumer guilds; labour can express its responses through unions. The principle of the *Shura* is once again sustained in this framework, provides the most micro-level decision-making as a participatory organisation.

In this microeconomic order, for example, the family as an institution wherein individual character, motivation, education and consumption habits are initially formed, becomes an interacting unit in the full chain of interactive units all functioning on the basis of *Shura* (Huq, 1994). What we then have at the end of the globally interactive process is a string of *Shuras* hierarchically interlinked with each other. Their collective decisions flow in a circularly interactive-integrative fashion (Choudhury, 1991).

This signifies the grassroots orientation of the decision making and organisational behaviour that goes on in the Islamic political economy. Here is shown simply with respect to polity and economy-wide interrelationships. The strength of the total system depends upon the effectiveness of the knowledge induction derived from the unifying perspective of the *Tawhidi* roots. This experience is then made to permeate the entire human order. For this to take place, coercive rules and policies are replaced by logical induction and persuasion to win minds. The *Qur'an* is quite unequivocal in this regard, as it says that there must be no compulsion in religion. In the broadest context this means that human convictions are formed simply on the basis of truth (Ali, 1946a).

This particular open character of the *Shuratic* process leads us to consider another issue. Since total consensus cannot always be expected in adverse situations among minority groups with conflicting preferences, a method of ascertaining the legitimacy of public socioeconomic policies has to be adopted. This takes the form of grassroots participatory decision making to channel their preferences through their own and higher hierarchies of *Shuras*. The majority will prevail in the post-evaluation process at the point of response in Figure 3.1. The ruling by the *Shura* in this case then becomes a legitimate process, and for this reason the issue of population sustainability is seen in Islam as a political, economic and social prerequisite. The effectiveness of knowledge inculcation both as human resource development and as participatory involvement in the essential spirit of the *Shuratic* process, provides extensive participation. This establishes Islamic legitimacy.

A *Shuratic* process cannot exist as a means of coercion against the will of the electorate. A necessary grassroots transformation may not have come about to accept and pronounce the change. For the same reason a society can change from an Islamic order to a non-Islamic one, even within Muslim political states. In such an event two possibilities arise. First, the *Shuratic* process, by virtue of its social contractarian legitimacy provided by the Islamic state and vested in it by the electorate, legitimates the type of disciplinary and security measures in response to insurgent acts

against the Islamic state. Second, if the entire electorate goes against the Islamic state for some reason, then the *Shuratic* process loses its legitimacy for that political locale. Governance then reverts to other types.

However, even in a state of dissolution the *Shuratic* process does not cease to act as the knowledge-centred world view. In the socio-scientific order the *Shuratic* process as a scientific world view remains permanent. This is the statement of the *Qur'an* in light of the permanence of knowledge over falsehood as the only reality. This certainty finds its indelible expression in *Qur'anic* science. (Ali, 1946b).

The Permanence of the *Shuratic* Process

The openness of the *Shuratic* process in society at large does not mean the institution cannot protect itself against subversion. Here too the mechanism of security is taken up within the same type of discursive nature of the *Shura* as it is empowered by a societal and political legitimacy. This is mandated by the *Qur'an*: steeds of war are permitted by Islamic law in the event of subversive disorder (Ali, 1946c). This principle was established by the example of the Prophet Muhammad, who was led to wage war against the overwhelming forces of disbelief in the battle of Badr.

In light of the *Tawhidi* world view, failure to attain social well-being provides the basis for social insecurity, which cannot be permitted by the Islamic order. The concept of security in this case, as explained in Chapter 2, is the guarantee of moral-material entitlement through its general acceptance throughout Islamic society. During the Battle of Badr, this guarantee of security was established by the *Qur'an* once and for all in the Islamic world view (Ali, 1946d).

Thus even in adverse situations the spirit of the unifying and interactive world view of change continues to influence the dominant culture. Such a process is called the Islamisation of knowledge, which has become well-known in both Muslim and non-Muslim societies (Faruqi, 1982). Furthermore there is also the concept of subnation, whereby Muslims form themselves into *Shuratic* guilds to gain their own share of political power and the consequent freedom to give vein to their economic and social expressions. Today, such an Islamic transformation is occurring within Western nations (Jansen, 1994).

Even in the most adverse situation of political expression for the *Shuratic* process, the existence interactions as reflected in the principle of universal complementarity and ethical endogeneity of socioeconomic actions is never annulled. The *Shuratic* process is now understood as a scientific methodology. This methodology of interactions emanating from

and leading to systemic unification remains universal to mankind over space, time and systems (Choudhury, 1995).

Since the roots and sustainability of the *Shuratic* process is ingrained in knowledge formation arising from the affirmation and confirmation of *Tawhidi* epistemology at all levels of human existence, *Shuratic* action has to pervade all elements of society and not simply the economic order. Otherwise the market consequentialism referred to in Chapter 1 will mean that the moral prerogative is replaced by hedonism.

EXTENSION OF THE SHURATIC PROCESS TO ECONOMY-SOCIETY-SCIENCE INTERACTIONS

Since the economic order is simply an embedded subset of the greater domain of political and social interactions and is also carried out in unison with the attributes of just balance and just purpose extended to science and society in harmony with each other, a greater domain of social action must now be construed. In the lower part of Figure 3.1 this is shown by setting the economic order within a broader complex of social and political relations. Since the boundaries of economic and socio-political actions now intermingle intensely, there exists no particular standard methodology to dissociate these spheres of action. This is in accord with our earlier explanation of why well-behaved linearised models of economic theory cannot effectively address the issues of Islamic political economy.

A COMPARISON OF ISLAMIC POLITICAL ECONOMY WITH BOULDING'S TOTAL SOCIAL SYSTEM

Boulding's Total Social System

In the complex of interrelationships between socio-political and socio-economic forces in the Islamic political economy, one can see differences and similarities between this world view and Boulding's idea of the total social system. For Boulding, the total social system is made of three separate subsystems, each endowed with its own preferences. Conflicts exist between the benevolent subsystem and the malevolent subsystem. For example the benevolent preferences of international non-governmental organisations are always in opposition to the development plans of governments. To establish harmony between these conflicting preferences, the economic subsystem is defined by its own set of preferences, which neutralise

the conflicting preferences of the benevolent and malevolent subsystems by appealing to the hedonism of market exchange (Boulding, 1972).

Consequently, for example, we find that the promise of UN aid to international NGOs and their presence being allowed in the UN decision-making framework has neutralised NGO developmental opposition in global conflicts. Likewise cost-benefit accounting by the UN shows that such UN-NGO sharing is to the UN's advantage. Costly conflicts between NGOs and national governments with respect to the implementation of various aspects of national development programmes at the grassroots of developing countries are mitigated (Delgado, 1993). In this sense of mitigating the conflict between the benevolent and malevolent subsystems of the total social system, Boulding's economic subsystem presents a view that marginalises the role of institutional realities by reducing them principally to economism.

In the social interactions in part 2 of Figure 3.1, each of the segments 1, 2 and 3 would mean individualised subsystems in some form, arranged to denote social consensus that are economically derived. However such a mechanism is not true of social consensus formation in the Islamic political economy.

Islamic Political Economy

In Islamic political economy the reality of intersystemic conflicts is recognised. But since each of the social subsystems is impacted upon by the uniqueness of unification epistemology, and its knowledge-based methodology relating to the real world is the same as the interactive world view mentioned above, the consensus dynamics now proceeds by calling forth the large number of hierarchically interlinked *Shuras* arising from each of these subsystems. The common axiomatic premise to address among them are the *Shari'ah* rules on specific issues at hand as seen from the *Ijtihadi* viewpoint. In this way institutional realities converge into consensus through the medium of interactions, with the realisation of social well-being as the final output. Materially dominated, economically motivated agents can address neither ethical issues nor the sustainability of moral-material complementarity, which is so badly required for human well-being. However knowledge, as the only reality in a unifying universe, can affirm and confirm a common well-being that is at once moral and material in nature.

Furthermore, to integrate the socio-political and economic subsystems with the scientific institution, one can conceptualise further interactions of the former universes with the scientific universe. This phenomenon is

shown in part 3 of Figure 3.1. One notes here a gradual coalescing of the scientific order with the economic and socio-political orders, through the progressive advance of knowledge flows and the evolution of the *Shuratic* process through intersystemic interactions and integration. Only in the most ideal case of intersystemic comprehension of the knowledge-centred process will the socio-political universe encompass the economic universe. The exact order in which this union of the domains proceeds remains undetermined.

It is likely however, that at the advanced level of Islamic transformation, the logical explanation of the *Tawhidi* epistemology and the *Shuratic* process at all levels, will make the scientific orientation to primarily encompass over the other domains. Subsequently the socio-political domain will include the economic domain. The union of these three systems, together with the interrelationships among them, comprise the field of Islamic political economy.

Such an interactive-integrative process brings out the social relevance of science, as the latter is gained by going through the same kind of knowledge-centred methodology as shown in part 1 of Figure 3.1. This methodology is universal in nature, not simply with respect to the social application of science and technology, but also in the methodological orientation of scientific thought (Hull, 1988). Scientific explanation is now afforded by the unifying principle of the world view. In this, the principle of universal complementarity with the endogeneity of knowledge in it, constitutes a substantive input-output relationship. This establishes the *res extensa* of all cognitive relationships affected by unification of knowledge flows (Choudhury, 1995).

THE ETHICO-ECONOMIC GENERAL EQUILIBRIUM SYSTEM OF ISLAMIC POLITICAL ECONOMY

Equilibrium in the knowledge-centred evolutionary universe within and across systemic interactions is a substantive concept. In Chapter 2 the evolutionary, knowledge-induced universe was characterised by an inherently open system in the temporal order. However the total universe, from the primordial to the hereafter (*Akhira*) forms a topologically complete universe (Maddox, 1971). Thus, although permanent equilibrium and optimality are not possible in the temporal phase, the stock form of the knowledge-centred universe is topologically complete and compact. Hence the terminal points of the *Tawhidi* universe must be permanently in equilibrium and in a state of 'completeness'.

All these properties of the knowledge-induced evolutionary universe mean that the domains of material events start off with less dense sets. Then as knowledge cumulates, the same domains become denser, and this property is dynamic. Hence dynamic equilibrium must exist in such moving dense sets. However, since increasing denseness also means more rapid evolution, there is an equivalence among interaction-integration, evolution and denseness of knowledge-induced points of the domains of action within and between systems. Such points, as we have seen earlier, are made up of tuples of knowledge and knowledge-induced material forms. Hence in such a case the scientific, socio-political and economic sets interact and integrate, as implied in part 3 of Figure 3.1. In addition the phenomenon of interaction-integration is linked by cause and effect to the principle of universal complementarity, which in turn establishes a world view that unifies systems as the universe consciously learns and evolves.

If these precepts of dynamic equilibria are applied to the general economic equilibrium shown in Figure 3.1, we obtain the following picture. In the initial state of low density of knowledge points, the consumption set comprises a proportionate amount of 'bads' (*Haram*) as well as 'goods' (*Halal*) and a number of undetermined categories (*Mubah*). Of these, the set of *Mubah* is a temporary one, for as knowledge flows are generated such consumption categories are finally sorted out either as *Halal* or *Haram*. Hence the consumption trajectories proceed finally as disjoint ones in these two categories alone. Each one of these consumption categories displays similar dynamics except that the *Halal* trajectory increases by the multiplier effect of knowledge flows. An example of this is sustainable development through avoidance of waste (*Israf*). The consequent multiplier effect can be measured by the resultant social well-being, which is now the ecological concept of total sustainability. In the highest realms of Islamic belief the knowledge multiplier is set at 1:10 by the *Qur'an*, that is, for every good act there are 10 blessings. The proper interpretation is that a multiplicity of blessings are associated with good acts.

The *Haram* trajectory increases by means of its de-multiplier effect on sustainability. This de-multiplier is set at 1:1 according to the *Qur'an* – that is, for every evil there is one punishment in the de-knowledge space, causing a decrease in well-being. The sets of events then become less dense in knowledge. This must mean that mutual independence among the events leading to individuation and individualism among their agents, will increase. Such a state implies the embedded presence of individualism in the de-knowledge sets. Thus while dynamic equilibria prevail there can be no optimality, for according to the unifying precept of the

shown in part 3 of Figure 3.1. One notes here a gradual coalescing of the scientific order with the economic and socio-political orders, through the progressive advance of knowledge flows and the evolution of the *Shuratic* process through intersystemic interactions and integration. Only in the most ideal case of intersystemic comprehension of the knowledge-centred process will the socio-political universe encompass the economic universe. The exact order in which this union of the domains proceeds remains undetermined.

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knowledge-centred universe, individualism causes static equilibrium and optimality at the cost of realism and richness of the social and institutional factors that influence politico-economic reality.

Now as knowledge flows speed up through the circular causation and continuity of the *Shuratic* process, the multiplier power of the 'goods' replaces the de-multiplier effect of 'bads'. This contrasting proportion depends on the fact that, since there is a one-to-one monotonic relationship between knowledge induction and its material creation, such tuples must increase in moral-material value together. The law of proportionality therefore dictates that the value of the 'bads' must decrease. An example of this positive aspect of the Islamic world view is the external possibility of society returning the planet to sustainability by reverting to a responsible attitude towards consumption and production. This provides an optimistic answer to Heilbroner's question on human sustainability – 'Is there hope for man?' (Heilbroner, 1991).

Finally, ethical endogeneity in the framework of dynamic equilibria means that knowledge forms and evolves as both an input and an output in all systems. Each circular relationship in this order forms moral-material causation and continuity. This in turn determines a final output of social well-being. This stage through the attributes of the Islamic world view causes simultaneity between the moral and material ends to occur. The ethical nature of the knowledge-centred world view in this moral-material order is essentially its unifying ability as opposed to intersystemic methodological individualism and all that this entails.

The process of ethical endogeneity is reflected by the speed and continuity of the creative evolution from lower to higher levels of certainty. This too is equivalent to the dense transformation of the conjoined moral and material tuples. This implies that in the absence of unification epistemology and the consequent knowledge-centred evolution of moral-material reality, ethics and ethical action can have no meaning.

We shall examine this problem by means of the following arguments. Suppose that liberalism forms the basis of ethical action, as is assumed in occidental thought. Then either dominance by the large or dominance by the individual will have to prevail in order to bring about equilibrium and optimality of exchange states. Such dominance can emerge either through behavioural means or methodological means, but the two must exist conjointly. If this was not the case, for example, firms as technical units of production would use their methods to produce social goods, while hedonic consumers, on the behavioural side, would demand private goods. Then market forces, as the supreme regulator, would negate the possibility of social production. If however consumers also behaved altruistically to demand social goods, then

economic efficiency would be substituted by ethical considerations. Again market forces would negate this process. Neither of these possibilities could therefore hold true in a state of ethical endogeneity. Thus ethical action is negated by the very primacy of markets in the liberal order.

Liberal governments can enact policies to engender ethical actions. However such actions have proven extremely costly for these economies. With the cost of social expenditure skyrocketing, the attendant inflationary conditions result in loss of income, declining purchasing power and lost welfare for the poor. This in turn leads to instability and inequity in distribution, even though the liberal governments would like to put ethical actions into play by means of social expenditure (Sullivan, 1989).

The substantial difference between the Islamic and other concepts of equilibria is now obvious. In the occidental order the introduction of ethics destabilises the economic system, which reverts to ethical neutrality as market consequentialism must lead to optimal and equilibrium states in the midst of egoistic self-interest. In the Islamic order, morals and ethics must exist as fundamentals in order to bring about moral-material complementarity through the knowledge-centred world view.

A SIMPLE FORMALISATION OF ETHICO-ECONOMICS AND DYNAMIC EQUILIBRIUM IN ISLAMIC EVOLUTIONARY EPISTEMOLOGY

The above sequence of interrelationships among the concepts of dynamic knowledge-induced equilibria and their creative growth, yield the following formalism on ethical endogeneity:

$$K: \text{Primal} \rightarrow k_1 \rightarrow f_1(k_1) = X_1 \rightarrow k_2 = f_2(X_1) = f_2(f_1(k_1)) \rightarrow \dots \rightarrow k_i^{a(i)} \rightarrow \dots$$

compact space \leftarrow evolving compact spaces \rightarrow terminally compact space

↑	↑	↑
Unified primordiality: optimality, permanent equilibrium	Cumulative unification attained by the circular causation process: <i>Shuratic</i>	Denseness of cumulative knowledge flows = existence of equilibrium

Here $a(i)$ denotes the higher powers of the multipliers endowed with the cumulative interactions denoted by i , which could be continuous or discrete but are incessant in the *Shuratic* process.

THE SMALLEST AND LARGEST LIMITS OF TEMPORAL INTERACTION-INTEGRATION IN THE TAWHIDI WORLD VIEW

Consideration of the nature of equilibrium in the Islamic ethico-economic framework leads us to investigate the limits of interaction-integration in this inter- and intrasystemic general equilibrium universe. In other words, this issue invokes the 'butterfly effect' – a butterfly flapping its wings in the Amazon rainforest could eventually cause a hurricane in Texas.

So how could a seemingly isolated event such as a simple breakfast of rice and fruit in rural Malaysia have significant effect on world trade? Brown and Hogendorn address this issue effectively in their book on international economics (1993). The point of argument is that in the knowledge-centred world every event has its similar or entities linked with events mutate with other ones to form similar categories. Hence the breakfast menu has an immediate effect on production patterns in Malaysia. This in turn determines a large part of demand- and supply-related market forces, the prices and revenues of commodities in general, intersectoral shifts, marketing, asset holding, income distribution and poverty alleviation, integrated market functions, the resultant Malaysian social and political implications on the world-wide flow of resources, diversification, international relations and so on. According to Hogendorn and Brown, a simple breakfast is related to all similar menus and their complements, and this generates a vast range of flows and interactions in all the choices and ingredients that go into the breakfast.

Likewise the simplest unit of analysis in the *Tawhidi* world view has consequences like the butterfly effect. It is infinitely small but has the power to interact, unlike the atomistic view of the individuated universe. The same individuated view in the idea of systems is shared by atomic and particle physics and their attendant prototypes in other branches of science. Occidental socio-scientific order is thus thoroughly individualistic in its foundational and essential elements (Dampier, 1961).

When the microcosmic unit of decision making in Islamic politico-economic analysis is the individual, this individual is merely one agent in the midst of the social whole. When the unit is a plant in a firm, it is interconnected in its specialisation with the general specialisation of the firm as a production and organisational unit. Such a concept is unlike the sheer specialisation perspective of the firm presented by Adam Smith, wherein specialisation means entrepreneurship in an environment of division of labour and its independence within plant processes, each centring around such differentiated specialisations to optimise economic efficiency.

The knowledge-centred interlinkages between systems are also polar to the other views of entrepreneurship presented in the economic literature. Examples of these other views are Schumpeter's development dynamics, that over the business cycle is found once again to converge toward the Smithian market order characterised by specialisation and growth; and Friedman's neoclassical concept of the social function of firms' profits (Friedman, 1980).

The integrative knowledge process begins at the micro level. Its immediate general equilibrium field is determined by the limits of the knowledge flows, together with the associated cognitive forms in the vicinity of knowledge-based limiting state. As the knowledge flows increase in density, greater 'environmental' action is generated and the creative continuity carries this process onwards to expanding fields of action. Such a field concept *res extensa* was also referred to by Descartes and Whitehead in their ontological manifestations of reality (Gillies, 1993; Whitehead, 1978).

What we have in this case is an expanding universe of interconnections among moral-material tuples that become increasingly inflationary in the process of knowledge generation, much like the open-ended inflationary universe theory recently developed by Hawking (1988). The knowledge-centred universe can be seen as a series of interconnected general equilibria within the cosmic entirety. We noted this in the range of evolving compact spaces shown above. Only in the primordial and terminal endpoints of *K* can the limits (optimality) of the moral-material tuple be fully attained. Topological completeness of the knowledge-based universe is then finally established.

Micro-Macro Interface of Islamic Political Economy

The implication of such a construct arising from knowledge-centred dynamics is profound. It shows that every macro-level consequence is formed by micro-level interactions. Likewise the universal macro-completeness of *K* determines the nature of the micro-level *k*'s as knowledge flows. The material consequences of these changes are simultaneously subsumed. These types of aggregation and disaggregation mechanisms imply the following results.

First, the micro-foundations of Islamic political economy are of fundamental importance in transmitting ethical actions throughout the macroeconomic order. Public and macroeconomic policy instruments are constructed on the basis of their microeconomic concepts demand and

supply of resources, and institutional organisational policies. Integrated *Shuras*, as explained earlier, perform this wide range of functions. This is contrary to Keynes' moral compunction that drove his ethical views in a macro-system without a moral perceptor in it.

Second, the macroeconomic outlook of Islamic political economy shows that the state has an important role to play in guiding the directions of change while acquiring residual powers in the areas of defence, security, money creation, land tenure, fiscal matters and international affairs. It also has the important task of providing socioeconomic guidance by disseminating information to the public. Thus the initiation of a knowledge-forming process in reference to the divine text in the *Shura*, becomes a critical part of the circular causation dynamics in the knowledge-centred creative evolution. The actions of the macro-level institutions must be affirmed and confirmed by the micro-institutions by means of this circular causation and continuity methodology.

Finally, in this pattern of interlinkages between the micro and macro levels of decision making, Islamic political economy shows a hierarchical, interactive-integrative coordination of policies, plans and programmes. This starts at the micro level and extends to the macro level. The two processes – from polity to market, and from market to polity circularly interconnect. Even in the formation of the *Shura* it can be seen how decentralised, representative and coordinated the systemic processes are within the domain of *Shari'ah* on every issue.

A MUNDANE QUESTION IN ISLAMIC POLITICAL ECONOMY

From the openness to the limits of micro-level phenomenon arise questions such as the following: how do we see the *Tawhidi* epistemology in action in the most mundane of activities, say bricklaying? To answer we proceed as follows.

Bricklaying as an activity can be seen as an industry that involves clay, moulds, kilns, energy, chemicals, drying techniques, labour, architectural design, engineering, the construction industry, marketing, subcontracted technologies and much more. *Tawhidi* epistemology is invoked in clay exploration by asserting the concept of environment protection while exploring clay and kiln development. Such a practice dates back to the Prophet Muhammad and is called *Hima* (Llewellyn, 1980). The same principle is now applied to the preservation of the environment while developing clay exploration sites. Such an environmental consideration in construction should be observed today in the South-East Asian countries,

especially Malaysia, where rivers, streams wildlife habitats, forests and land are being indiscriminately polluted and eroded by construction and heavy industry.

Tawhidi epistemology is invoked to mould any technological activity by means of the principle of waste reduction; thereby complementing energy, chemical and architectural needs as suited for the construction of Islamically oriented architecture. A brick-baking kiln is then seen as a technological device whose principle of operation and development can be premised on the structural design of a process that reduces energy waste, controls emissions, increases productive capability and utilises indigenous labour, engineering, scientific and technological skills, and local physical resources. Such techniques are followed by an environmentally feasible sustainability of the kiln site during the post-production phase. Such extensive complementary activities illustrate the unification that underlies the interactive-integrative process provided by the *Tawhidi* world view.

Now consider the opposite approach. Multinationals in the West Indies, using electrically fired modern furnaces, have caused environmental disaster with their capital-intensive construction activities. It is not so much the electric mechanism but the waste left behind that disables environment. Here the neoclassical type of trade-off between the environment and employment or between ecological destruction and economic growth is found to be endemic in the idea of an economy-environment approach to socioeconomic development. The possibility of complementarity between the social and economic goals does not exist, not even in the phases of technological change. The reason for this is that technology has been treated exogenously as in the neoclassical approach to the problems of efficient resource allocation, growth and social equity. In the neoclassical approach social equity is marginalised by the gain on growth and efficiency (Spooner, 1982).

In this way we can proceed with the other areas of the bricklaying activity, where an integrated process as opposed to mutual independence of profit-driven market forces can establish the interactive-integrative world view invoked by the *Tawhidi* methodology. At the end we find that the butterfly effect mentioned earlier applies to events in the Islamic political economy in the most extended sense of a micro universe extending itself to the macro universe and *vice versa*, through explainable complementarities. The idea of knowledge-centred interrelationships in the *Tawhidi* world view is thus polar to the Greek view of the cosmos or to the 'one-many' problem of Eastern philosophies, that lose their functionalist content. The 'one-many' problem is discussed in the literature (Rucker,

1983). In Kantian metaphysics, which has profoundly influenced all occidental thought and borrows heavily from Greek thought, the cosmic relationship is found to be non-functional by virtue of its ephemeral concept of God embedded within the disjoint reach of pure reason, far removed from reality. Reality of being for Kant remains disjoint from the *a priori* condition of pure reason. Thus pure reason remains disjoint from practical reason (Carnap, 1966).

TAWHIDI NON-FUNCTIONALISM AMONG MUSLIM PHILOSOPHERS

The above kinds of *Tawhidi* non-functionalism were also espoused by the early Muslim philosophers, who were overwhelmingly influenced by Greek thought. Worth mentioning in this respect are Ibn Rushd, Farabi and Ibn Sina (Saud, 1994), all of whom believed in the independence of the divine order of God and His absoluteness and oneness from the functional domain of the material world. The active intellect is endowed in God and the world, and the passive intellect is made to rest in rationalism independent of the divine attributes. Like the Mutazzilites, these dialecticians considered the relational functionalism that is *Qur'anically* established between all things in the Heavens and Earth by divine cause and effect – phenomena of a universe bound in time and matter (Bergh, 1969). Thus the explanatory function of knowledge flows as the incessant design of the evolutionary process from primordial beginning to the hereafter – as opposed to the physical existence of the universe in space and time – was not taken up by the Muslim rationalists.

The rationalists also viewed the domain of matter and form to be premised simply on the eternal existence of matter (Zimmermann, 1981). In this sense empiricism was treated as the primal ground for the existence of God in ways that Descartes later did with respect to logical positivism. Form and matter are shown to be created sometimes by opposites and sometimes by natural causes. This was pure Aristotelian thinking. Farabi went to the extent of writing about the perfect state of human kind by depicting the stature of the Prophet Muhammad and the Divine Laws in terms of the Greek concept of philosopher-king. Perfection of state thus took on a form that was metaphysically premised on the concept of just ends. Socially though, Farabi's perfect state was a construct for philosophers as elites. This was an emulation of Greek thought regarding the supreme *telos* inhabited by philosopher-kings.

In the realm of micro-macro interface established by means of the primal order of stock of knowledge and the final order of the same stock in *Akhira* – both signifying divine unification – the Muslim rationalists had nothing to contribute. There was a world of cosmic connections, like the Greek metaphysical concept of the cosmos as entirety. This left no empirical meaning for the relevance of the *Tawhidi* epistemology within an explainable universe by means of this source. The case is found in Farabi, who invoked the cosmic balance as a grand entirety to address the topic of perfect state. Within this cosmic entirety, the process events that describe socio-political and economic perturbations and thus beg for a *Tawhidi* epistemological explanation, was not realised. Methodologically, this micro-macro interface was impossible to realise within a cosmic construct based on entirety. Likewise the treatment of the hereafter (*Akhira*) as a scientific genre did not exist for these dialecticians except as a metaphysical reference. Consequently creation was seen to exist in the eternity of matter and time. This led to the concept of infinity, which was associated with the endlessness of materiality and form. Such an idea of infinity in the domain of divine action is a meaningless concept as the primordial and end states cannot be intelligibly comprehended with regard to temporal events as described by space – time structure. The concepts of equilibrium, creative evolution and all the attributes of the Islamic world view, as explained in Chapter 2, were unknown to the Muslim rationalists even in a crude form.

Subsequently, even Ibn Khaldun's *magnus opus*, *Muqaddimah* (An Introduction to the Study of History), turned out to be a spatial and cultural history of the Arabs of his time, rather than an Islamic philosophy of history emanating from the *Qur'an*. For Shah Waliullah, an eminent *Qur'anic* thinker (*Mutakallimun*) and not a rationalist, there remained serious problems relating to the topic of abrogation of one *Qur'anic* verse by another on specific issues (Waliullah, 1985). Any acceptance of *Qur'anic* abrogation means disruption to the way that revelation is made to explain process, evolution, continuity and generalisation of the *Qur'anic* message across space and time. Thus all in all, no possible theory of interactions between science, society and political economy, in the manner shown in Figure 3.1, could emanate from these early philosophical doctrines. The Islamic scientific purity found among the *Qur'anic* philosophers lost its currency with the rationalists when the latter started to emulate Greek thought and became speculative metaphysicians. Hence the Muslim dialecticians could not bequeath to posterity the essence of *Tawhidi* epistemology, that is unification of knowledge premised on the globally interactive-integrative world view (Bakar, 1991).

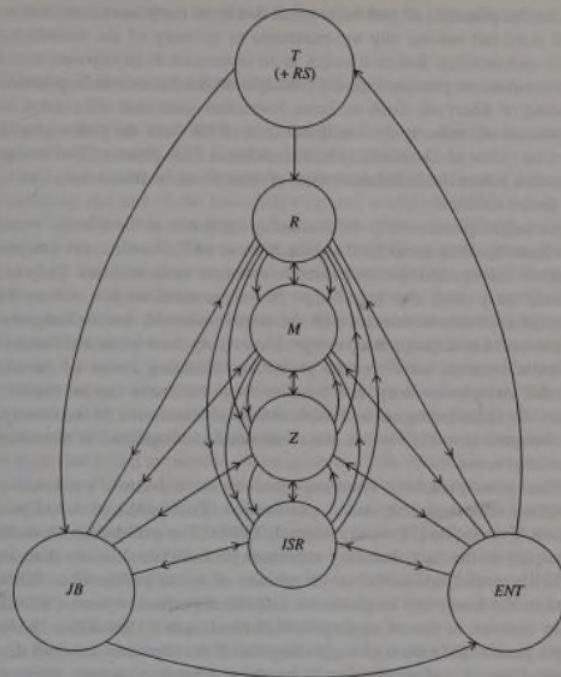
THE PRINCIPLES AND INSTRUMENTS OF ISLAMIC POLITICAL ECONOMY

The epistemological explanation of Islamic political economy now leads us to formulate its functional features to address socioeconomic problems. While it must be understood that no economic issue can be addressed without reference to the underlying institutional dynamics, we will leave this explicit treatment of institutional issues to Chapter 4.

Principles

In Figure 3.2 the *Tawhidi* foundation appears at the crest of the principles. It includes both the *Qur'an* and the *Sunnah* as the foundational epistemological texts. The second principle is shown to be 'just balance', in terms of the substantive meaning of this attribute both in the human world and in the cosmic universe. The principle of social justice establishes the *Shari'ah* pertaining to the establishment of social well-being as a complex of factors surrounding just balance. Because the principle of just balance appears as an attribute at this level of analysis it remains as a character of the *Tawhidi* axiom. Hence it remains to be self-referential. It need not contend with the issue of how this principle is formulated, applied and delivered to society at large. The principle of just balance can be interpreted from the *Qur'an* as the key attribute of the unity of God manifested in the unified world view of the human, natural and cosmic order, all inter-linked to form a supreme balance. The inculcation of this attribute draws the soul and heart towards divine realisation. The process that starts with the realm of *Tawhid* (oneness) and ends with its realisation in the attribute of just balance comprises the belief formation process that remains essential for the creation and instrumentalisation of knowledge flows. This belief-formation process is called God-consciousness – *Taqwa* (Choudhury and Malik, 1992).

The third principle is that of entitlement, meaning due claims by all in society. The issue of entitlement does not simply relate to the poor, it involves both poor and rich alike. Entitlement is universally equitable. The principle of entitlement establishes the basis of the Islamic social contract, which is required to realise just balance. Entitlement also means that the goal of productive and social well-being is inherent in *Tawhidi* reality. For this reason, in other studies entitlement has sometimes been replaced by the principle of work and productivity (Choudhury, 1989). Again, because of the universality of the concept of just balance, entitlement is extended to humanity at large through its relationship with the world. An example



Notes:

T = *Tawhid*, *RS* = *Risalah* (sayings and actions of the Prophet Muhammad), *JB* = just balance, *ENT* = Entitlement, *R* = *Riba* (financial interest or any excess from transactions), *M* = *Mudarabah/Musharakah* (profit sharing, equity participation and the like, respectively), *Z* = *Zakah* (Islamic tax on wealth and savings beyond an exempted level), *ISR* = *Israf* (waste in consumption and production).

Figure 3.2 Interactions among the principles and instruments of Islamic political economy

of such an embedded relationship is the interaction between ecological concerns and sustainable development, the environment, the appropriateness of technology and the choice of development regimes (Agius, 1990).

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Like the principle of just balance, at this level the principle of entitlement does not invoke any measurement or delivery of the underlying goods and services. Rather it exists as an invocation to incorporate social contractarianism premised on the principle of just balance in any understanding of *Shari'ah*. Such an inner invocation generates affirmation of the process of realising the functional laws of life from the philosophy of *Shari'ah* (*Usul al-Shari'ah*). (Shatibi, undated) This phase of knowledge formation marks the initial derivation of rules from the foundational texts, and denotes *Ahkam*.

One might question why the remaining attributes of the Islamic world view have not been considered as principles as well. The reason is that just purpose, felicity, certainty and creative order are ontic realities. They are realised only after the knowledge flows premised in the *Ahkam* of *Shari'ah* are made to interact with the cognitive world, from which integration and social consensus emerge. Underlying these other attributes is the ontic exercise based on the process of realising cycles of moral-material complementarity. But none of these attributes can be realised unless the epistemological and methodological foundation of the interactive-integrative world view is first understood and ingrained in the entire *Tawhidi* process.

Other principles have been espoused by some Islamic economists, including ethical responsibility, purification (*Tazkiyah*) and moral perfection (*Islah*) (Naqvi, 1981; Ahmad, 1980). The problem with these principles is the fact that they represent an individual rather than an explicitly social self-actualisation process of moral purification. When taken to the limit, any emphasis on individual perfection means a utilitarian concept of lateral aggregation of ideal agents (Harsanyi, 1955). Naqvi goes to the extent of suggesting that if the choice is between distributive equity and economic efficiency, an Islamic economic arrangement must choose the former (Naqvi, 1978). Such a restrictive constraint would be unappealing to humans in the midst of human frailties within markets. The Islamic economic order promotes a free market process. Naqvi's prescription is also of a neoclassical substitution bent, except that it is biased in favour of distributive equity as opposed to economic efficiency.

The knowledge-centred world view, on the other hand, cannot allow such resource (goals) substitution to occur in light of its principle of universal complementarity. At worst, when a trade-off situation of the above type occurs in the knowledge-induced market transformation, it is viewed as a short-run event and is ultimately corrected by recourse to the principle of social contractarianism. Through such revision, entitlements to both

capital and labour must be guaranteed while observing the principle of just balance.

Circular Relationships Between the Principles

The relationship flow between these principles is strictly circular, as shown in Figure 3.2. This requires further explanation.

It is obvious from the foregoing explanation of how *Tawhid* forms the beginning and end of the knowledge-centred world view. What does this mean for emanation of a process from either of the principles 2 or 3 proceeding on to *Tawhid*? In answer, such would be an ontic phenomenon enabling humankind to rise to the realisation of divine truth from the affirmation followed by confirmation of a practical feat of social well-being that ensues from the knowledge-centred processes in the real world. These are realised through the inexorable need for justice and the satisfaction of rights and duties. The foremost example of an inexorable realisation coming out of human experience is that of the Prophet Abraham, who turned to God after realising that everything else, including the heavenly bodies to whom Abraham had supplicated in search of answers, were just objects that failed to provide divine guidance (Ali, 1946e).

The *Shari'ah* too is known to be procedurally, though not substantively, developed on the basis of customs and spatial practices (*Urf* and *Adah*) (Faruqi, 1992). Imam Malik, for example, placed great emphasis on prophetic traditions (*Ahadith*) that were common practice among people (Rahimuddin, 1985). Later on this kind of thinking influenced Imam Shatibi's thought, on public purpose as a means of deriving the criterion of social well-being (*Al-Istislan wal-Maslaha*).

It is however important to understand that, since all guidance comes from the primal divine root, moments of self-actualisation by ontic experience mark a momentary reversion of the mind to the domain of *Halal*, thus escaping from a current state of *Haram*. This is equally true of temporary states of error and indeterminateness (*Mubah*), which are resolved as knowledge advances from lower to higher levels of certainty. The *Qur'an* is full of divine mercy for the repenting soul (Ali, 1946f). Thus although it is possible to derive divine guidance from ontic reflections of *Ayat al-Allah* (signs of Godly beneficence), this remains an instrumental event not a substantive one. The essential knowledge-based process commences from none other than the *Tawhidi* root. In other words it is self-actualisation emanating from observation, and not petrified observation of *Ayath al-Allah* alone, that is necessary for premising knowledge and creation on the *Tawhidi* roots of reality. Thereafter the circular causation

process regenerates itself and the ontic merges with the purely epistemic in this circularity and continuity (Choudhury, 1994b).

Likewise it is not possible to proceed from the principle of entitlement to the principle of just balance, except through an instrumental response. This experience is thereafter initiated from the side of just balance. In this way the clockwise motion of the arrows in Figure 3.2 will apply in the substantive sense.

Principal Instruments

Within the realm of principles are the principal instruments of Islamic political economy. It is sufficient to note here the main categories of instruments that galvanise the principles into action in an Islamic political economy. More extensive instruments can be developed by combining these principal instruments or similar ones. Hence, for example, foreign trade financing, which operates on the broad principle of development cooperation, can be taken up with profit-sharing and equity participation as the principal categories (*Mudarabah/Musharakah*). Likewise – since all financial instruments operate under the general principle of economic cooperation – leasing and renting, secondary financial instruments, unit trust funds, joint ventures and cofinancing can all be taken up with *Mudarabah/Musharakah* (Ariff and Mannan, 1990).

Alongside interest abolition can be included abolition of rentiership, profiteering and risk-pricing of uncertainty (*Gharar*). The economic gains from all of these are of a speculative nature. Their values remain unknown until economic output is realised. During the period of speculation, financial flows exact exchange in terms of a price for risk. This constitutes a monetary cost for risk through speculation. Thus, speculative pricing is compounded by the fact that such prices involve an exchange of monetary units for a cost arising from speculation. Such a cost stands for the price of money exchange and constitutes the interest rate (*Riba*).

With *Zakah*, a tax on wealth and savings earmarked for mandatory social spending on specific target groups, can be included the other mandatory taxes collected by an Islamic state: agricultural tax and taxes imposed in times of national exigencies. Taxes to finance deficits cannot be mandated as deficit financing is not recommended in an Islamic economic arrangement.

Waste avoidance (*Israf*) can include the removal of all kinds of social costs that accrue from the consumption and production of both luxury and non-luxury goods. While the *Qur'an* lays emphasis on avoiding wasteful consumption on the luxury (demonstration effects) artefacts of life, there

are also *Qur'anic* references to avoiding the wasteful consumption of all kinds of goods. Production and consumption waste (*Israf*) of both basic needs and luxuries can be inferred from various verses of the *Qur'an*: basic needs and services of all kinds are shown in the *Qur'an* to have been produced for the benefit of mankind by God's Will, that is, by the social and economic rules premised in the Divine Laws. Yet they came to be used for human self-gratification and not for realising the just cause. In this sense even basic needs, and not just luxuries, become wasteful artefacts (Ali, 1946g).

Imam Shatibi categorised three forms of consumption in order of their acceptability to the Islamic political economy (Ansari and Choudhury, 1994). First is the consumption (and hence production) of basic needs (*Dhururiyath*). Second is the consumption (and hence production) of comforts (*Hajiyyath*). Third is the residual and highly conditional consumption (production) of goods of higher vintages (*Tahsiniyath*). This kind of evolving diversification of goods also shows the dynamic nature of the basic needs regime that Imam Shatibi had in mind while categorising goods into these three types. Social well-being is derived from a combination of the first two types of good, irrespective of the level of development of a community or nation. This is because all basic needs and comforts acquire higher categories as the development process advances. This is a function of the moral-material worth that comes alongside the development process. It also means a simultaneous advance in the knowledge plane of the Islamic political economy. Thus, with this advance, less of the total stock of goods enter the basket of luxury/elite goods. Such an allocation in the Islamic political economy shows the perpetual technological change that comes about with the diversification and advancement of basic needs and comforts, thereby displacing luxuries as costly items.

The purpose of the instruments of Islamic political economy is to attain the functional goals aimed at by the principles. Here measurement, logical relationships, inferences, public policy and organisational behaviour all become important. Yet in the actual mechanics of this process the principles and instruments work in automatic cohesion with each other. Let us investigate some of these relationships. It will take only a few examples to show that multiple interrelationships and the consequent direction of change can evolve from the various alternative interactions among the instruments themselves and with the principles. It should be noted here that there can be no preordering of the instruments, unlike the precise flow of the principles. This is because with any particular state of public policy prescriptions, priorities and the existing resources available to the

institutions/polity (*Shura*), there could appear various approaches to Islamic politico-economic transformation.

Examples of such a variety can be seen in the case of Iran, which after the Islamic revolution immediately changed to an interest-free financial system; thus profit-sharing participatory instruments became important. On the other hand Pakistan and Malaysia consider that Islamic economic transformation should be a gradual process. Levying *Zakah* on businesses has so far been overlooked in Pakistan but is practised in Malaysia, where the use of *Zakah* funds to assist the poor *bumiputeras* has been emphasised for a long time. The tremendous increase in the use of Islamic financial instruments to mobilise funds among the rich and poor in Malaysia is yet another recent financial development along Islamic lines. Such economic and financial developments have contributed to a remarkable control of poverty in Malaysia. On the matter of avoidance of *Israf* as a key prescriptive instrument, Malaysia is starting to direct its interest towards the idea of conservation through safe guarding habitats. Such a practice was known as *Hima* during the time of the Prophet Muhammad, who both recommended and practised it. The practice of *Hima* is now attracting attention in some leading world fora on sustainable development (Martinez-Alier, 1990).

Some Interactions Among the Instruments

Starting from the general principle of elimination of *Riba* as financial interest, we note that the immediate replacement of interest-bearing transactions or their gradual replacement with a deliberate national plan are equally acceptable in *Shari'ah*.

With the immediate elimination of interest charges the result could be a sudden increase in domestic demand for public goods, such as loan funds for microenterprises and land holdings. This could create an excess demand for investments, and as a consequence a liquidity gap could appear. If the transformation process from interest-bearing transactions to interest-free ones were to be left to capitalist institutions, business cycles could appear, causing inflationary pressures in the face of the resulting savings gap and increased investment demand.

The case would not be the same with Islamic transformation. Much of the enterprises activated in the face of excess demand for investment funds would be small to medium size in the initial phase of development. This is because the elimination of *Riba* would at once address the principles of just balance and entitlement. Consequently investment funds would be mobilised through participatory instruments of the type governed by the instruments of *Mudarabah/Musharakah*. Thus pooled financial resources

combined with risk-diversification caused by an increase in small to medium scale participants, would bring about an increased propensity to mobilise funds into real investments rather than their being held idle as savings. The speed with which savings were continuously liquidated to fulfil the demand for investment funds would cause a fall in inflationary pressures and real growth would increase. Enterprises, as well as benefiting employment, distribution, diversification, efficiency and technological change, would become catalysts for market transformation. Markets would simultaneously attain the twin goals of distributive equity and economic efficiency.

Over subsequent cycles of the relationship between investment and interest-free demand, and the supply and mobilisation of funds through *Mudarabah/Musharakah* type instruments, the scale of operations would increase and the field of productive activity expand. Greater complementarity would be established between operations of all sizes. In all cases the process of adapting to appropriate technology and investment plans, growth and distributive equity would occur simultaneously and wipe out the savings gap. In fact saving as a medium for capital formation, economic growth and intertemporal consumption can not apply in such a balanced economic regime. This is the logical basis of the reason why interest cannot play a meaningful role in Islamic capital formation and social well-being.

Appropriate technology reduces both production and social costs. Hence it is an important means of controlling production waste. On the other side, the adoption of appropriate technology can be seen as a response to appropriate consumption. Otherwise the two would fail to achieve a balance. Hence appropriate technology can be seen to be linked to evolving types of basic needs regimes that are catered for through market processes and the interactive processes that sustain them. The match between consumption and production in basic needs regimes is brought about with the help of consumer guilds, production guilds, participatory democracy and hierarchical links among the *Shuras* to determine the micro-macro interface for a productive and equitable market transformation. Ethical values are thus introduced into the market process by the institutional life of participatory groups and instruments. The market is then transformed into an ethical order (Choudhury, 1994).

The participatory nature of Islamic political economic instruments, together with the generation of wealth by means of productive capital formation through market processes and the share-economy, imply that moral responsibility must increase as well. This is not simply caused by personal attitudes towards Islamic belief. Rather – since distribution is inextricably

linked to the productive mobilisation of capital – increased distribution must in turn generate greater capital formation through participatory enterprises. Hence the complementarity between distributive equity and economic growth must mean the elimination of *Riba* and its replacement by *Mudharabah/Musharakah*. This must in turn link up with the institution of *Zakah*. The end result is a complex of relationships among the instruments of elimination of *Riba*, the institution of *Mudharabah/Musharakah*, *Zakah* and avoidance of *Israf*.

Reverse relationships of several types can be formalised. For instance, in the transition to an Islamic economy emphasis may first be placed on profit sharing, equity participation, joint ventures, trade financing, risk diversification (hence loss sharing) and the cofinancing of *Shari'ah* approved projects. Through these instruments premised on the principles of the Islamic political economy, evolution to the final state of an interest-free Islamic economy is gradually attained. In such a case *Mudharabah/Musharakah* can be made the arm of capital formation to ensure the liquidity needed to support the reserves required for interest-free banking. The same instruments form the basis of the transformation that must finally be fuelled by a viable clientele, capital base and Islamic institutions. The institution of *Zakah* and avoidance of *Israf* are subsequently linked to attain moral-material complementarity. That is, complementarity between economic efficiency and distributive equity in the Islamic politico-economic framework is realised.

The globally participatory nature of the interconnections and regeneration between principles and instruments/institutions is evolved through interactions, circular causation and creative evolution of the type shown in Figure 3.1. The net result is the elimination of interest and its replacement by participatory instruments to realise the principles of just balance and entitlement, while the globally interactive-integrative world view enabled by *Tawhidi* epistemology is sustained. The higher multipliers in this transformation process are realised by continuous and vigorous interaction and integration among the human institutions of *Shuras* forming *Ahkam*, and the participatory-type market-based instruments. This marks the evolution of knowledge both in the human world and by its systemic interactions in and between the physical and cosmic worlds of markets.

Figure 3.2 shows that the circular relationship between the principles is influenced by multiple interrelationships between the instruments, as well as between the instruments and the principles. For scientists it would of course be a highly complex task to explain the multitude of relationships that span this universe. This in other words, is the idea of cosmic entirety. We rejected such a concept earlier as being insubstantial to explain the

globally interconnected, ethico-economic, micro-macro interface of the Islamic knowledge-based world view. The fundamental point to note is that because all processes emanate from and then return to the *Tawhidi* premise, every time a circular causation is completed by interactions leading to new and enhanced levels of knowledge a simulated system is generated. The orbital movement and evolution of the creative order are incessant. The principles of Islamic political economy are thus made to connect with the cognitive order to create social well-being at the end of a completed interaction-integration. Such a process is incremental and recreative through a combination of the attributes in the knowledge-based world view.

KEYNESIAN, CLASSICAL AND ISLAMIC ORIENTATIONS TOWARDS THE MARKET PROCESS AND THE ROLE OF SAVINGS

The nature of the continuous resource mobilisation that takes place in Islamic political economy through increased investment demand and liquidation of savings, means that spending becomes the moral-material arm of resource mobilisation, growth and income-multipliers. All this may appear very Keynesian in meaning, yet there are vast differences between the Islamic and the Keynesian dynamics of saving, investment, liquidity and resource mobilisation.

In Islamic political economy, saving is legitimated only to the extent that liquidity has to be generated to satisfy non-speculative investment demand. Hence the saving function is replaced by a liquidity function of the following type:

$$L(\pi, Y/p) = I(\pi, Y/p) + Sp(p, \pi, Y/p)$$

where, $L(\dots)$ denotes the liquidity function in terms of the price level, p ; real income is Y/p , Y being nominal income; π is the profit-sharing rate if the equation is taken at the microeconomic level, or the profit rate if the equation is taken at the economy-wide level; and Sp denotes other spending variables, of which a part is consumption and investment. The *Qur'an* includes a variety of spending categories, including goodwill and grants economy (Ali, 1946h).

The Concept of Money in Islamic Political Economy

Clearly, then, the demand and supply of money – in other words the quantity of money in the economy – is determined by liquidity needs. Hence

money is simply the liquidity required to service investment demand and all spending. The price of money here is not based on the exchange value of money. Rather the value of money is determined by the exchange and store values of goods and services as approved by *Shari'ah*. Such transactions are accounted for by investment and spending variables and are mobilised by the direct price level, p , and the expectation for real profit as represented by Y/p .

Price Relations in the Islamic Version of Spending and Monetary Sectors

Now consider how the components of the above equation respond to changes in p , Y/p and π . When Y/p increases, L , I and Sp will increase. If π increases, then L , I and Sp will increase as well. Sp will respond to π by way of an increase in incomes and its distribution in the participatory economy.

The relationship for p has to be carefully observed. Since at any stage of its development the Islamic economy involves the production and consumption of necessities and comfort goods, such goods will have elastic supply and demand curves. We now have a picture similar to limit pricing in an oligopolistic situation, except that in participatory situations the predatory nature of oligopolistic pricing does not occur. Furthermore, stability of population growth in the Islamic nations would create large markets and demand to exhaust the supply. Thus the demand and supply curves in such graduated and stably populated economies remain fairly elastic. Therefore the profitability variable, π , is affected primarily by output rather than by prices, and the value of π has a spurious effect on p .

The shape of the Islamic version of the IS curve (IIS) will now be positively sloped in π , Y/p , and will be spuriously affected by p because of the stable nature of p . These are characteristics of a non-inflationary economy. The picture here is of an economy that has either replaced its interest-earning transactions or is phasing them out. Hence interest rates tend towards zero. The IIS case is then the dual of IS and no obvious difference exists between the spending form of the IIS curve and the expenditure form of the IS curve.

Next consider the case where liquidity is equated with the quantity of money. This is the consequence of the productive capacity of the Islamic economy responding to values of π , p and Y/p . Monetary authorities therefore cannot create or destroy money. They can only supply currency as tokens to denote the unit value of transactions, once π and hence Y/p have been determined. Thus for given values of π and Y/p , a precise amount of

currency circulates through the economy. Now the Islamic version of the LM curve (ILM) is positively sloped in π , Y/p , p . Consequently there is no consistency between the LM and ILM curves, unlike the case of consistency between the IIS and IS curves due to the dual nature of IIS to IS when profit rate (profitability) replaces interest rate.

Between the IIS-ILM and the IS-LM mechanisms there are now opposite dynamics in the sense of general economic equilibrium of the Keynesian type. In the Islamic economy, as i increases π declines through investment contraction. The quantity of money as volume of currency in circulation declines, and *vice versa*. In Keynes' general equilibrium system, increasing i causes an increasing supply of money. These results show that the role of *Mudarabah/Musharakah* in resource mobilisation, establishing $L = 1 + Sp$ as given above, explains a saving-investment relationship that is quite contrary to the Keynesian $I = S$ relationship.

The analysis given here can be further extended by incorporating the knowledge variable, k . This can be proxied by the learning parameter relating to economic information flow. This particular analysis invokes complex simulation methods that can be applied to politico-economic models. Among them are chaos models with orderly behaviour, bargaining games with incomplete information, logic of fuzzy sets, perturbation methods and simulation. This part of the complex though more credible analysis of Islamic political economy, remains outside the purview of this study (Muses, 1995).

EMPIRICAL EVIDENCE FOR IIS AND ILM FROM MALAYSIA

There is some empirical evidence to show that the type of IIS and ILM formalised above have prevailed in Malaysia in certain periods (Choudhury, 1995). For instance inflation and interest rates on savings remained low and unchanging for the period 1987-91. During this time the National Bank of Malaysia did not pursue an active monetary policy on setting interest rates. Hence interest rates set competitively between commercial banks in open financial markets had a depressive effect on interest rates and prices, while demand for liquidity increased in the face of Malaysia's increased demand for investible resources, outstripping the supply of savings. Foreign direct investments flowed in to Malaysia in response to the high profitability prospects, providing the much needed investible capital.

The result of these movements, when viewed within the Keynesian comparative statics framework, meant an almost horizontal LM curve in

terms of interest rate; whereas the ILM curve remained elastic in terms of profitability. The IS curve was almost horizontal because of marginal variation in interest rates. Whereas the IIS curve remained elastic in terms of profitability.

PRICING AND RESOURCE ALLOCATION

In the final analysis, the treatment of price in the micro-macro interface of the IIS and ILM mechanism leads us to consider how prices are formed from the demand and supply sides. This leads to the study of the nature of market equilibrium in the knowledge-centred order and thus to the topic of resource allocation and distribution in the Islamic political economy.

The principle of universal complementarity is now invoked to replace the neoclassical idea of substitution. Figure 3.3 shows the case of interactive choice between two goods, X_1 and X_2 . We note that in the ideal state of Islamic political economy, since no 'bads' are allowed, if say X_1 is a bad (unemployment), the production possibility degenerates to the point $a(0, X_2)$. If both X_1 and X_2 are bads (for example interest rate and deficits), the degenerate point is $0(0, 0)$. Should X_1 and X_2 be 'goods', a point such as b does not reside on any preconceived notion of the optimal production possibility frontier.

The impossibility of a point such as b in Islamic resource allocation is due to the non-existence of the preconceived notion of equilibrium, optimality and stability that arise in neoclassical economics from the notion of conflict, independence and individualism as behavioural and institutional preferences. Furthermore in neoclassical economics these attributes are assumed not to be short-run phenomenon but permanent. The realisation of the optimal production frontier is thus a permanent and long-run phenomenon of optimality, equilibrium and stability gained from the behavioural conditions mentioned. Prices are then formed by the marginalist substitution that attenuates the existence of the optimal production frontier and its accompanying assumptions. In Islamic political economy, none of the assumptions of independence, individualism, resultant optimality, stability and equilibrium can be made in the presence of its principle of universal complementarity. The embedded utility and production functions of neoclassical economics must necessarily assume marginalist substitution between inputs, either taken singly or in bundles of substitutes.

Besides these conflicting characteristics of the neoclassical production possibility frontier with the knowledge-induced perspectives in Islamic political economy, there is also the profound difference made by the

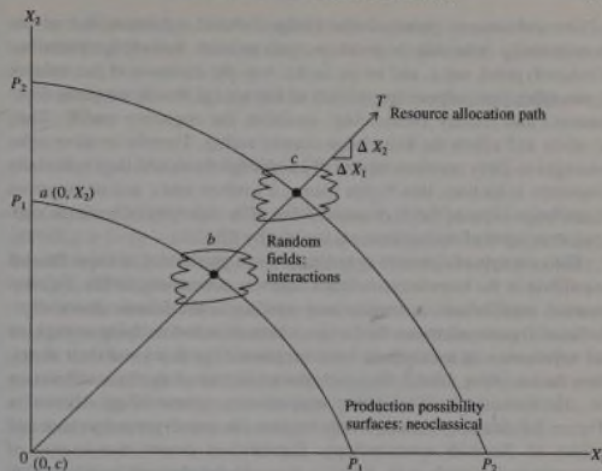


Figure 3.3 Pricing and resource allocation according to the principle of universal complementarity

pervasiveness of interactions in Islamic political economy and the absence of this in neoclassical economics. The reality of *Shuratic*-type institutional and 'environmental' effects causing knowledge flows, which also means the existence of the principle of universal complementarity, implies that points such as b are surrounded by fields of possibilities at the very moment that such decision points are near attainment. They are attained in the instantaneous sense, forming consensus, but only to thereafter evolve into higher levels of knowledge-induced cognitive reality as the creative order reoriginates from each such momentarily attained knowledge-induced points. What is true of the point b is equally true of all such points in the decision space comprising the positive (X_1, X_2) orthant. Hence the neoclassical optimal production possibility curve becomes non-existent in the knowledge-induced orthant. A point such as b now signifies a momentary equilibrium, which is not a neoclassical concept. Such points have no long-run optimality implications, stability or equilibrium significance in the neoclassical sense.

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The subsequent point of knowledge-induced evolution out of the momentarily attained b point is yet another knowledge-perturbed (induced) point, say c , and so on. In this way the attributes of just balance (principle), just purpose (possibility of knowledge flows), certainty (consensus) and felicity (well-being) establish the cognitive reality. They confirm and affirm the knowledge-centred reality. Thereby creative order emerges to carry previous tuples of knowledge flows and their materially cognitive inductions into higher planes. b evolves into c and so on across knowledge-induced fields of possibilities. The trajectory of resource allocation as locus of decision points is given by OT .

The concepts of dynamic or temporary and punctuated or expectational equilibria in the knowledge-induced case was pointed out earlier. To summarise, equilibrium, optimality and stability in the Islamic knowledge-induced framework mean the certain, continuous and unifying emergence of trajectories by interactions between knowledge flows and their cognitive forms (*Ayat Allah*). This was the trajectory of theory construction in the framework of unifying evolutionary epistemology shown in Figure 2.1. Stability condition here implies this convergence by cause and effect of *Tawhidi* epistemology. Equilibrium means movements of dynamic tuples such as $(k, X[k])$ in dense knowledge spaces. Optimality is replaced by simulation except in the uninteresting case of instantaneousness. All these points were explained earlier in terms of the primordial compactness of the *Tawhidi* universe and the temporal openness in transition from primordial *Tawhidi* completeness (stock of unified knowledge) to its cumulative realisation from the flows in *Akhira* optimal state (reconciliation and evidence of the primordially complete stock of unified knowledge).

PRICING AND THE THEORY OF DEMAND AND SUPPLY IN ISLAMIC POLITICAL ECONOMY

Demand Price

Along the trajectory OT in Figure 3.3 we consider an infinitesimally small triangle, ABC . Since X_1 and X_2 are complementary to each other, their prices, p_1 and p_2 respectively, will move in the same direction. However, according to the demand relationship, as p_1 and p_2 increase the demand for X_1 and X_2 will decrease together and *vice versa*. The quantities supplied of these goods will increase and *vice versa*. Since prices are formed out of the interactions between preferences of polity and the market order, as

shown in Figure 3.1, p_i , $i = 1, 2$, reflect values of social goods so formed in an 'ethicised' market. Market exchange is then utilised to establish this value.

Formally, let $V = V(X_1, X_2)$ denote the value so set for the complements X_1, X_2 . Then,

$$dX_1 dX_2 = (\partial V / \partial X_1) (dX_1 / dX_2) + (\partial V / \partial X_2).$$

That is, $(1 - \partial V / \partial X_1) (dX_1 / dX_2) = \partial V / \partial X_2$, and $dX_1 / dX_2 = (1 / (1 - \partial V / \partial X_1)) (\partial V / \partial X_2) > 0$. $(1 - \partial V / \partial X_1) > 0$. Now, since $dX_1 / dX_2 = dD(p_1) / dD(p_2)$, then $(1 - \partial V / \partial X_1)^{-1} (\partial V / \partial X_2) = D(p_1) / D(p_2)$. That is, $D(p_1) \cdot (1 - \partial V / \partial X_1) = D(p_2) \cdot (\partial V / \partial X_2) > 0$.

Hence the demand function is proportionate to value function. Price is thus a proportionate function of value. The complementary nature of goods in Islamic political economy now generalises this result for all goods. Demand price, then, is formed by proportionate value and no substitution exists between goods for determining relative prices as the neo-classical economic theory of consumer prices and economic value.

Supply Price, Expected Price

Supply price is formed by a similar proportionality of values in the midst of global complementarity. The interactive preferences between the consumption set, the production set and *Shari'ah* induction of these now determine the value imputation of the supply function. Thus supply prices are formed by the same mechanism as demand prices.

Finally, expected prices rather than equilibrium market prices are formed by the interaction of demand and supply. It is noted now that interactions are measured by the actual influence of *Shari'ah* in the determination of consumer preferences (demand) and production methods (supply) through actual responses from the human elements of the market order. That is why preferences are endogenous by knowledge flows.

Prices are proportionate to values set in ethicised markets in Islamic political economy, so therefore they are of classical orientation. But note what happens as soon as knowledge flows are induced in this system. Corresponding to the field of possibilities around the decision points shown in Figure 3.3, demand and supply functions are continuously shifting by the force of knowledge flows – equivalently, by the force of technological change. Technological change in forms of diversities is a positive function of knowledge flows. Thus market clearance in this system means a set of prices continuously induced by knowledge flows. Thus prices,

although determined by demand–supply functions in ethical markets, are not unique values. Rather they are an assignment of values (Aumann, 1964).

We have now linked pricing to the nature of demand and supply in ethical markets and this with the nature of resource allocation in the presence of global complementarity of goods, preferences and prices, as knowledge flows endogenise such polity–market orders. Resource allocation is determined along OT as explained by means of the principle of universal complementarity in Figure 3.3. Prices are determined by the formulation of value and prices by the same principle as formalised above. Since the values of dX_1/dX_2 determine complementarity between the goods in exchange, the idea of relative prices and resource allocation along the trajectory OT are consistent with each other.

Examples of notional prices rather than market prices of classical economics are experiences of today. This is found to be the case with stock prices. It is also found that stock prices do not move in response to resource substitution but rather on the basis of trader contracts. For example in Malaysia, as soon as palm oil appeared to be on the verge of being substituted by other supplies, it was diversified to other end products. The result of such diversification, hence product complementarity, was an increase in the price of palm oil. In this way substitution was replaced by diversification of the product, and product diversification is a cause and effect of complementarity.

A NOTE ON OPTIMALITY AND STABILITY IN ISLAMIC POLITICO-ECONOMIC ANALYSIS

We have described the knowledge-induced dynamic and creative ethico-economic general equilibrium framework of Islamic political economy. This has led us to implicate the methodology of simulation as opposed to optimisation to explain the creative order of affirmation and confirmation in knowledge flows. However, in Islamic history the Islamic State of Madinah and the essence of the Madinah Charter – which was completed as a knowledge-centred world view by the Prophet Muhammad during his spiritual flight to the region of perfect knowledge, the *Sidra al-Muntaha* – was indeed the only exception of the optimal state (Ali, 1946i). Hence if understood in terms of the essence of the Madinah Charter in the context of complete knowledge as entrusted in the Prophet Muhammad during his flight to *Sidra al-Muntaha*, then a temporally optimal stock of knowledge was endowed in the Prophet and presented as the essence of the Madinah

Charter. When all knowledge flows in the creative temporal order are induced by this Prophetic knowledge, then an optimal state is attained in the limit of the dense knowledge set, as explained above. The limit point of this set converges to the original Islamic State of Madinah. It can then be shown – either in a linear or in a complex function of knowledge relations premised in the completeness of the Prophetic knowledge of the essence – that optimality can exist. But this is an ideal state of the Islamic *telos*, which human beings cannot emulate perfectly. Hence, although the Prophet's experience of the essence of the Madinah Charter formed the optimal state, apart from this singular event all other temporal experiences of human beings and societies remain incomplete and thus evolutionary.

CONCLUSION

In this chapter we have investigated a wide range of central issues concerned with the principles and instruments of Islamic political economy, commencing with the unification epistemology of a globally interactive knowledge-centred world view. The *Shuratic* process was invoked to explain the extended polity–market interactions. This methodology was extended to formalise market interactions in Islamic political economy. Throughout comparisons have been made with the general equilibrium mechanisms of the Keynesian system, the classical and neoclassical systems and their prototypes. The concepts of equilibrium, optimality and stability in Islamic economies were raised to explain the nature of prices and resource allocation, demand and supply in Islamic political economy.

4 Perspectives of Institutionalism in Islamic Political Economy

From the previous chapters we have come to understand that the study of Islamic political economy involves a comprehensive interactive study within and between systems using the knowledge-centred world view. In this way a number of critical forces have been invoked to explain such interactions. First there is the individual agent who, whilst endowed with freedom of will, is activated by the knowledge-driven transformation to interact with members of the community and society at large. Such interactions bring out the potential of moral-material worth in society while the self-interest of the individual is realised by this social good. One can therefore deduce that all goods are social goods and the creative order is made up of common goods. The net result of the consumption, production and distribution of common goods in society through the kind of ethico-economic general equilibrium system shown in Figure 3.1 is social well-being (Choudhury, 1990).

INSTITUTIONALISM AND INSTITUTIONS: COMPARATIVE PERSPECTIVES IN THE LIGHT OF ISLAMIC MEANINGS

Islamic Perspectives

The concept of institution in the Islamic perspective was introduced earlier. It signifies an organisation that enables textual guidance on laws and interactions between knowledge flows and the cognitive order, followed by circular causation and continuity. This organisation is thus the natural and logical manifestation of the universal process of interactions that comprehends all systems. In the special case of the human world, this institution is termed the politico-economic *Shura*. Underlying this is the *Shuratic* process, which is endowed with polity-economic interactions. But the more universal concept of the *Shuratic* process is its universality, that is, interactions that proceed incessantly within and between all systems. In this sense the *Shuratic* process becomes scientifically endemic

to comprehension, explanation and application. The exception, however, to the scientific order of modernity is the anthropic essence of the *Shuratic* order. In this way the human connection and utility between the realm of science and the human world is induced by a unique methodology – that of knowledge-based interactions and integration, and thus unification between the ontic and epistemic processes of total reality (Sherover, 1972). Conversely, the scientific perspective of Western modernity means that its reality is based on the intrinsic dichotomy between the epistemic (*a priori*) and the ontic (*a posteriori*).

Out of the combination of the organisational manifestation and the philosophical orientation of the globally interactive-integrative knowledge-centred order arises the Islamic concept of institutionalism. This is characterised by the following principal attributes. First, there is a unique textual reference premised on unification of knowledge (*Tawhid* or unification epistemology). Second, there is the attribute of just balance, marked by the essence of equilibrium and justice in the Divine Laws that ground textual reference to the *Shura*. In Figure 3.1 these textual references were shown to form actions, *Ahkam*. Third, there is the attribute of just purpose marked by the realisation of just balance through knowledge-induced cognitive forms. Fourth, there is the attribute of felicity, derived from the tuplets of knowledge flows and the correspondingly induced cognitive order. This creates certainty in the process of unification between knowledge flows and the cognitive order. Hence the rise of creative continuity that affirms and confirms the interactive-integrative process. This affirmation and confirmation occurs in cyclical manner, thus establishing the continuity (reorigination or creative order) of the *Shuratic* process.

Evolutionary Economic Perspectives

In the literature on evolutionary economics, institutionalism is seen as a social Darwinian process formed by the interactions of competing values. Sometimes these values mutate to create new ones. Sometimes they displace others to command themselves. At other times, such as in the physical Darwinian process, they arise from an integrated origin, but soon become individuated through natural selection (Campbell, 1988).

The meaning of institutionalism in terms of values can be arrived at by considering the following sequences of value relations (Copi, 1973). A premise, p_1 , is related to another premise, p_2 , by means of the medium of value relation, V_1 . Thus we have the relation, $p_1V_1p_2$. Likewise, let p_2 be related to another premise, say p_3 , by means of value relation V_2 . Thus we have the relation $p_2V_2p_3$ and the compound relation $p_1V_1p_2V_2p_3$. In this way

p_1 is related to p_3 by a compounding of values V_1 and V_2 . Let this compound value relation be denoted by $V' = V_1 \circ V_2$.

Now consider the various possible manifestations of V' . Say that $p_2 = (p_2', p_2'')$, where p_2' and p_2'' are disjoint attributes of p_2 . It is possible that p_1 could relate to any one of these attributes exclusively and not to the others. On the other hand the other disjoint attributes could relate to p_3 . Therefore p_1 could not relate to p_3 . The value relation, V' , therefore does not become a correlate between p_1 and p_3 via p_2 . Rather V' is a medium of individuation between these premises. This is a case where the premises are of a Darwinian type. In neoclassical economics they become self-interested independent categories. In classical economics they become self-interested atomistic agents. V' is therefore either a non-interacting type of classical *laissez faire* or a marginalist substitution of neoclassical resource allocation.

Next consider the case when V' brings about the convergence of p_1 with p_3 via p_2 . One such kind of convergence is the Eurocentric hegemony of p_1 over p_3 via V' . In this case V_1 and V_2 are a linear relation of the other. An example of this is the social interdependent utility function of welfare economics.

Finally, let us assume that correlation exists between V_1 and V_2 to form V' , and hence that V' relate p_1 with p_3 through cooperative means. In that case V' must be premised on the epistemology p_1 , which cannot lead to the above two cases. In the absence of such a unification epistemology a value system as a belief influencing the consumption, production and distributional work cannot be formed. Hence a general ethico-economic equilibrium cannot exist.

The conclusion of all these is that, if p_1 is an epistemology of unification of knowledge, it will perpetuate throughout the subsequent premises of socio-economic actions. Consequently p_2 , p_3 and so on and V_1 , V_2 and so on will all be copies of this epistemology. The same result holds when p_1 is an epistemology of either individuation or hegemony. The difference is in the nature of V' . In the former case V' is interdependent on other values of V by means of the unification of knowledge. V' is then based on the principle of universal complementarity. It assumes the meaning of social well-being. In the latter case it cannot be interdependent without being hegemonic. V' is then either a utility function or a social welfare function. In both cases, marginalist substitution is a condition for the existence of these criteria.

Value relations as foundations of institutionalism must thus be considered as an epistemological permanence of reality in various systems. From such epistemological roots arises the concept of institution. In the above

case, while p_1 is taken as the epistemological root, V_1 and V_2 are taken as mechanisms (laws, means) of perpetuating p_1 in all subsequent systems that emerge, such as p_2 , ... A special case of such systems is the institution. Our definition of an institution, then, is a mechanism with which translate a particular epistemology (p_1) through textual laws (V_1 , V_2 , ...) into corresponding social, political, economic and human, arrangements.

Yet a problem arises with the concept of an institution as a system of correlates in the occidental order, where p_1 is the epistemology either of methodological individualism or of hegemony. Let us examine this further.

If an institution is defined as a system of correlated phenomena in the human world, then how can the pervasiveness of methodological individualism define correlates (Simon, 1987)? How can there exist recognisable correlates if there is a Eurocentric type of convergence and hegemony? The answer can be found by viewing the mega-institution as a laterally aggregated conglomerate of a vast number of individuated organisms. These organisms then converge by means of inherent power in the system.

One such power is political and institutional democracy, pronounced by voting rules and privileges. The same method is found in science as being interactions generated atomistically and extensively by mutation of organisms. The history of liberalism and civil libertarianism is permeated by such examples of political democracy as a political philosophy of power and privilege. We can find the neoclassical explanation of such democratic behaviour in Nordhaus' (1975) political cycles of democratic behaviour by the state. We can also trace it in rational expectations theory (Macrae, 1977), in public choice theory (Buchanan and Tullock, 1962) and recently in the concept of entitlement expressed by Nozick (1974) as unbundled private ownership of resource bundles existing in the state of nature. Nozick's minimal state is a means of legitimating such an absolute claim by individuals. Sen (1989) calls such an entitlement theory 'morally abhorrent'.

Mirowski (1988) points out that the rational choice and individualism that grounds neoclassical economic theory is also ingrained in scientific doctrines. In his words 'The social order of the economic world is reflected in the scientific order of the natural world; it hence comes as no surprise that Karl Popper has admitted that certain inspirations of his philosophy of science came from his particular Western understanding of economics'. Cartesian-type logical positivism and Newtonian-type particle dynamics, together with the Hellenic concept of atomism, are well-known as having grounded Western epistemologies in the socio-scientific

doctrines (Russell, 1990). Rationalist human presence is made the final determinant of cosmic phenomenon, which might only be acknowledged as the product of divine creation. But the divine order is as a factor exogenous this system. That is how Hawking views the meaning of divine order in creation Hawking took God out of context in the sublime laws of physical creation. (Hawking, 1989).

The end result of such rationalistic perspectives in the institutional framework of the primal epistemology, like p_1 , configures its subsequent field of influence of values (V) and cognition (p) in the abovementioned formalisation. This leads to what Bush (1988) calls 'ceremonial dominance'. It is followed by its instrumental valuation in the social-political and economic order. The two kinds of value – ceremonial as epistemological belief, and instrumental values as ways and means of realising ceremonial values – reinforce each other. If, however, ceremonial values dominate instrumental values, then such a state leads to stagnation. If instrumental values dominate ceremonial values there is short-lived transformation.

In the midst of all such changes we note that Western ceremonial and instrumental values denote two distinct premises of the origins of knowledge. They correlate with each other in the Hegelian sense to create endogeneity of this dichotomous process over historical paths. Thus there is now an endogenous process of continuously exogenous relations between mind and matter. The nature of the dichotomy is Darwinian. It occurs as ceremonial dominance in the case of Kantian epistemology. In the case of logical positivism and the ontic perception of the type created by Humean ontology, there is instrumental dominance.

The Concept of Institutionalism in Historical Institutional Thought

Veblen's ideas of institutionalism arose from his opposition to neoclassical economics, which he felt was an abstract scientific venture to explain the economic universe. Neoclassicism was seen not to explain the process of human interactions with the larger and richer world in which economic forces are embedded, the existence and impact of which cannot be analysed by the methods used in economic science. Veblen and Commons brought institutionalism into economic theory and emphasised the study of human processes in the socioeconomic order. Veblen (1912) contributed to the theoretical construct of institutionalist theory of socioeconomic. Commons contributed to the activity towards realising the goals of the institutionalist view of society and economy (Fusfeld, 1994). But out of their truly Darwinian orientations emerged a view of political economy

that was permanently in disequilibrium, conflict and 'environmental' decadence. Thus they were emulating the Marxist paradigm in socio-economics. In this, culture and values became the unsettling inputs of human existence. Furthermore such a disequilibrium was pervasive and endless, having no purpose to serve except giving attention to complex evolution of the Western institutional order. The Darwinian random order underlying Western institutionalism has always been the mainstay of its political and economic philosophy (North and Thomas, 1973).

Consequently epistemological orientation was not considered by the institutionalist school. This was a great academic debility. The new institutionalists argue that the failure of this school lay in its inability to construct a methodological approach premised on sound theory, in spite of its recognition of socioeconomic dynamics. This led to the unscientific nature of the economic institutionalism of the evolutionary school, led by Veblen and Commons and later emulated by Mitchell, Ayres and Tool (Mayhew, 1988).

The new institutionalists, on the other hand, are political neoclassicists. Transaction costs appear important to the new institutionalists and are treated as spillovers that cause measurable distortions. An example of such a transaction cost is the marginal cost of environmental degradation, which is assumed to be measurable. Hence a degree of determinism is always assumed by the new institutionalists in all kinds of market and non-market resource allocations. This feature of measurability, predictability and market valuation is built into transaction costs. Environmental degradation and social costs are thereby valued by market determination and statistical measurement. Such a market valuation, even in its restricted sense, must imply a marginalisation of non-pecuniary diseconomies arising from environmental decadence (Gordon, 1993).

A consequence of the thoughts of the evolutionary institutionalists was the assumed non-existence of an orderly theory of organisation, and thus of policy and political organisms. Institutions emerging from such disequilibrium perspectives of social Darwinism could not coexist for long. Hence in this sense, in the extreme case of most individuated conflicts, evolutionary institutionalism collapsed into nothing other than the power-benign processes and market atomism of the type found in classical economic theory. The result was of the nature of a Hayekian spontaneous market order and of institutions that invisibly exist in the midst of their subsequence to sheer market forces. This was also the inevitable result of the overall Darwinian process from correlated origins to individualism due to natural selection.

THE PLACE OF BOULDING AND GEORGESCU-ROEGER IN INSTITUTIONALIST THOUGHT

Boulding's Behavioural Social Order

Boulding, as the originator of the behavioural school of economic thinking, used evolutionary economic thought. Yet as a moralist, Boulding would have liked to have seen the presence of ethical policies and values in the economic order. Was he able to accomplish these?

To answer this question one must examine the role that Boulding assigned to knowledge in his behavioural system (Boulding, 1967). He takes the example of the amoeba, which is seen to learn by struggling and adapting to the environment. In this way, two functions are shown to emerge from Boulding's organic world. First, there is the struggle for survival. Second, there is adaptation to change, once the struggle for survival has been won. The picture is thus no different from that of social Darwinism. The ethical order arises in that for Boulding the social world contributes to the survival of the economic system. This was seen earlier as a construct of Boulding's total social system, which in turn led to the ultimate ethical neutrality of economic exchange subduing the benevolent preferences by the malevolent preferences of these subsystems. We have also shown that such a neutralisation of ethics in conflict resolution within the social system is an alternative form of substitution, whose fullest blossoming comes out of neoclassical economic theory (Choudhury, 1994a).

Georgescu-Roegen's Entropic Economic Process

Georgescu-Roegen's evolutionary economics is based on the perception that growth – being the result of interrelated processes – brings about entropy in the economic system, an entropy that is irreversible (Georgescu-Roegen, 1981). Thus the economic system is viewed in terms of the laws of thermodynamics, in which the growth of matter is seen to be associated with an irreversible increase in entropy. What brings about the increasing entropy in Georgescu-Roegen's evolutionary economic system is the interrelationship between order and disorder. In this, conflict becomes dominant in order to generate new springs of knowledge. Equilibrium and convergence are thus not the properties of such a system, since the evolution of knowledge through transmutation takes place through the displacement of old organisms by new ones along distinct and diverse paths.

Georgescu-Roegen's capital formation emulating his entropic evolutionary economic system, is seen as the reproduction of capital through a

large nexus of processes in which every process is endowed by its own endowment of capital that interacts with those of other capital processes. Hence aggregate capital is not simply the total capital endowed in such processes but a compound of capital formations across all processes. If any process is in disequilibrium, which it must be in the entropic system, then all other processes are affected. Disequilibrium remains dominant over equilibrium, spurring evolution. The concept of equilibrium as a permanent state cannot be the result and source of an evolutionary order.

Permanent disequilibrium and the conflicting scenario of the socio-economic system, together with the related concept of capital reproduction, were a legacy from Marx & Sraffa in Georgescu-Roegen's evolutionary economics. When taken to the logical limit, entropic evolutionary systems also form the basis of Drucker's knowledge-based, post-capitalist organisational model (Drucker, 1989). The globalisation of the post-capitalist world is seen to be the result of pluralism and the emergence of new organic forms. This occurs by using the power of hegemony. Methodologically such an Eurocentric hegemony is represented in laterally aggregated individuated preferences in politics and organisation.

TECHNOLOGY AND ORGANISATION IN ECONOMIC INSTITUTIONALISM

Organisation

The entropic and Darwinian orientation of evolutionary epistemology in organisational theory can now be used to define the idea of organisation in such systems. Organisation in such a system means the existence of natural selection processes that conflict and evolve from each other in an endless sequence of pluralistic and individuated learning processes. There are two phases for the formation of such processes: (1) interactions that generate power and conflict; (2) such power-laden processes alienate each other into emergent institutions and entities. Thus evolution remains permanently endemic and dominantly entropic.

In a more physical form, a firm is one such organisation, the state is another. Let us see how these are characterised in their entropic evolutionary forms.

In the short run, the capital input of a firm is formed by a relationship between capital processes. These may either be endowed to physical plants within the firm or among inter-firm plants. Now if a joint production method produces the final output, then a short-run production function

must depend on a compound input of the capital processes. But even as specialisation proceeds by the emergence of knowledge through learning-by-doing in the system, new processes emerge by displacing and replacing old ones. In this way the path of evolution is marked by conflict and transmutation among processes, resulting in individuation.

The long-run historical trajectory is thus made up of individuations and transmutations, not of interactions leading to integration and evolution, for convergence is not a property of such a model except by means of hegemony. Hegemony here is caused by a combination of ceremonial values with instrumental values of a given rationalistic perception enforced by dominance.

The long-run evolutionary trajectory of a Darwinian or an entropic system can be expressed as follows:

$$T(K_1 \times K_2 \times \dots \times K_n [P_1 \times P_2 \times \dots \times P_n]) = \\ T(\Pi_{i=1}^n K_i [P_i \times P_2 \times \dots \times P_n]) = \Pi_{i=1}^n T(K_i [P_i \times P_2 \times \dots \times P_n])$$

This expression shows that – irrespective of the origin of the interactive process-related transmutations, P_i ($i = 1, 2, \dots, n$) – the emergent history of capital formation, K_i ($i = 1, 2, \dots, n$), denoted by the trajectory T , is made up of the trajectories of independent capital stocks, K_i ($i = 1, 2, \dots, n$). In this the interactions of the processes denoted by $\Pi_{i=1}^n P_i$, form not convergence but pluralism. The indexes i denote plants, firms and agents within these entities.

Technology

The idea of technology in the evolutionary entropic framework is that of instrumental enforcement of ceremonial values that are created during the moment of individuation among conflicting and disequilibrating processes. These can be agents and systems. In the classical and neoclassical paradigms – the evolutionary perspectives of which are to be found in public choice, rational expectation and some forms of evolutionary economics – technology becomes a means of attaining optimum profit, utility and social welfare. As stated earlier, these are the result of methodological individualism.

In the pure evolutionary economic system, technology promotes momentary interactions that lead to the emergence of pluralism, conflict, independence and disequilibrium. In institutional theory such a technology is manifested by Western organisational design to gain allies for a common belligerent object that creates hegemony and alienation over the

weaker ones. In our opinion the United Nations is one example of an institution whose technology is designed to bring developing nations under a common umbrella in order to serve Western interests. Likewise the concept of globalisation is pursued by the World Trade Organisation (earlier by the General Agreement on Tariffs and Trade) to harmonise all national policies with respect to trade liberalisation, while IMF–World Bank policies call for the stabilisation of Western economies and coordination of their macroeconomic policies. The irony of this is that sharp conflicts are generated by such hegemonic organisational impositions because of the inability of Western economies to stabilise their economies through their monetary and fiscal policies (Naqvi, 1994; Ansari, 1986).

The ecological waste generated by irresponsible consumption in the West is yet another example of the inherently conflicting and entropic result of a technology that is premised in entropy theory. Consumption and waste-control technologies in the west are not premised on transforming consumer preferences but are aimed at suggesting population control in developing countries. Thus a conflict appears between the goals of consumption control and population size. The consequence here is both entropic in the sense of alienation between social goals in the midst of a design to exercise hegemony over a collective process under the United Nations (Parikh, 1992). On the other hand, such a consumption–population conflict is an example of neoclassical marginal substitution ingrained in institutional behaviour.

Technology and Institutionalism

Finally we will provide a brief introduction to the concept of technology in relation to institutionalism. By the same orientation of methodological individualism in Western economic system in both the neoclassical and evolutionary framework of economics, technology becomes a mechanism for enhancing the conflictual nature of human systems. This effect of technology is generated both by cause and effect in this order. Since technology leads to the production of wealth and increased productivity, its internal dynamics is premised on a framework that can enhance the methodologically individualist basis of such wealth and capital formation. Technological perception must therefore be of a similar individualistic, resource-substituting type. An example of this characteristic of technology can be found in the neoclassical treatment of technology *vis-a-vis* resource allocation. This characteristic is manifest in the nature of the production possibility curve, which represents the effect of technological change on resource allocation.

In the entropic view of evolutionary institutionalism, technology once again provides the basis of socioeconomic change. Since this change is characterised by evolutionary entropy, technology cannot constrain the underlying evolutionary disequilibrium. An example of this is the use of pharmaceuticals for medicinal purpose, which in turn, are found to cause ecological entropy by harmful emissions. The same picture can be applied to most industrial production, which today is being enhanced by technological force but is increasingly becoming ecologically unsustainable.

FROM INSTITUTIONALISM IN EVOLUTIONARY ECONOMICS TO INSTITUTIONALISM IN THE ISLAMIC FRAMEWORK

We have already established the fact that the knowledge-centred *Shuratic* world view of Islamic political economy is essentially an evolutionary epistemology. Thus there is common ground between the process goals of the evolutionary institutionalists and the Islamic world view. However, central differences of an epistemological nature divide these worlds. Consequently the concepts of institution, organisation and technology are also fundamentally different and opposed to the social Darwinian perspectives of economic institutionalism. We shall examine these issues now.

The Islamic Concept of Economic Institutionalism

Institutionalism is equated with the world view of the *Shuratic* process in the domain of political economy. Hence the social, economic and political orders interact under the principle of global complementarity enabled by the Divine Laws (unification epistemology as complete stock of Knowledge) and the creative continuity of the epistemology of the process of unification across the tuples of knowledge flows in cognitive forms.

An example of cognitive form in the knowledge-induced process model of change is the institution of *Shura*. We mentioned earlier that the uniqueness of the textual reference to *Shari'ah* in all systems of the human order universalises the *Shuratic* process inter- and intrasystemically, irrespective of the differences in issues and problems between the various systems. Thus the concept of institutionalism in the Islamic socio-scientific order is one of universal correlations developed in the human order with respect to the various problems that arise from social, economic and political domains, and are made to interact, integrate and further evolve on the basis of knowledge flows. This process is then encouraged to evolve creatively through the medium of (knowledge, cognition)

tuples. Hence the evolutionary process of institutionalism is a dynamically equilibrating process permanently affirmed and confirmed in the human dimension.

In the more generalised case, institutionalism also means scientific knowledge organised through the extended concept of the *Shuratic* process found in the interactive-integrative and knowledge-induced evolutionary histories of the physical universe. In that case, scientific explanation in the physical system is made to interact with the laws and well-being of the human order to establish its existence on the basis of the *Qur'anic* attributes. In other words, there is a unique knowledge-centred way of explaining each and every part of reality. In Figure 3.1 we showed this in terms of the continuity of the creative process through the interactions between flows of knowledge and the material world.

The Kantian and Humean kinds of dissociated epistemic and ontic views of the universe are thus negated and are replaced by continuity between the purely *a priori* domain and the purely *a posteriori* domain. The means for this is the essence of divine unity and unification, which is enshrined in the stock (unification epistemology = *Tawhidi* epistemology) and is derived through the *Shari'ah* to bring the same essence of unification to the experiential world. The only possibility for such a unification process is to make the primal stock of knowledge and its evolutionary epistemology to be the only substantive essence of reality (purely *a priori* = epistemic). Thereby material things become merely physical (purely *a posteriori* = ontic) intermediaries of knowledge-induced cognitive forms. The universe, including its most minute and abstract systems, thus assumes form, meaning and creative movement in the midst of flows of knowledge alone.

The ceremonial value of the *Tawhidi* order is thus the logical coherence of the stock, which the *Qur'an* establishes as the most irreducible essence of truth, reality and creation. This axiomatic emanation, shown in Figure 3.1, can come about in several ways. The *Qur'an* points out many examples where the realisation of truth comes to some initially as pure belief; to some it will appear after a process of search and discovery; to some it will appear as confirmation of belief through contemplative search and discovery; to some it will appear as innate realisation (for example among those not in a sound mental state). However, whatever the route taken by this self-actualisation, it comes from the Divine Will in the first place. That is, all creative order is formed by the stock of knowledge alone (Divine Will = Divine Laws).

Thus ceremonial value in Islamic institutionalism is premised on the revealed law and is not determined by and premised solely on the

abstraction of human reason. The *Shari'ah*, then, is not of human design. It establishes the textual reference of unification epistemology. In all Islamic socio-scientific systems, the fundamental ceremonial value is the universal *Tawhid* (unity of God) plus *Risalah* (Prophetic explication of the *Qur'an*). In Islamic political economy, *Shari'ah* takes up the principles of just balance and entitlement in specific precept of *Shari'ah*, such as social justice, equality, duties and obligation premised on human solidarity (*Ihsan* and *Islah*). In the scientific order, the same principle of entitlement can be replaced by freedom, as *Qur'anically* explained for the physical order. The *Qur'an* enjoins human beings to desist from creating mischief in the world once it has been placed in order (divinely ordered) (Ali, 1946).

Instrumental valuation in Islamic institutionalism means the development of suitable instruments, interpretations and rules to apply the principle of *Shari'ah* to real experiential problems of life. Examples of instruments so derived are the elimination of interest transactions (*Riba*), the establishment of profit-sharing and loss-sharing instruments called *Mudarabah/Musharakah*, the institution of wealth taxation for specific distributive purposes (*Zakah*) and avoidance of waste (*Israf*), together with various extensions and combinations of these. In the physical order, whose institution is science, possible instrumental values would be the promotion of biodiversity, the avoidance of waste, relations of structural order in the theoretical constructs and the positivistic inferences derived from these structural relations. All these are derived from *Qur'anic* and *Sunnatic* premisses.

We therefore find that the dynamic concepts of stability, equilibrium and creative continuity through the circular causation of knowledge are embedded properties of Islamic institutionalism. Thereby the entropic basis of evolutionary institutionalists, the social Darwinian randomness followed by pluralism, and the exogeneity of ethics with the persistence of power in systems are all negated and opposed as illogical, unethical dynamics. The chaotic capital relationship of the kind given by Georgescu-Roegen and found in Marx's inorganic structure of capital produced by the exploitation of labour, as formalised earlier, is now replaced by the following:

$$T([K_1, xK_2, \dots, xK_n][k]) = T([K_1(k) \times K_2(k) \times \dots \times K_n(k)]) = T(K[k])$$

where K_i , $i = 1, 2, \dots, n$ denote capital formation through knowledge induction, k – that is, the limiting value of a convergent sequence of knowledge flows corresponds to processes for K_i , attained through

interactions among these processes. Thus because the knowledge flows as a manifestation of capital formation processes converge to k and induce the K_i values, K_i also converges to the limiting value K (Maddox, 1970). The resulting capital formation is K and not that pronounced either by the resultant individuated processes of an entropic and Darwinian type production method or by methodological individualism in the exchange processes of classical economics. Systemic hegemony – say of the type that runs by means of firm-specific perks given by managers to their subordinates to comply with plans – is replaced by consensus formed by *Shari'ah* and not human ego.

Institution and Organisation

Now the definition of institution is that of *Shura*. But because the *Shuratic* process is of universal validity inter- and intrasystemically, the *Shura* as a universal Islamic institution is also hierarchical and globally interactive and integrative. Thus the institutions of Islamic political economy are not disjoint from the institutions of, say, family and science. Note how in the Marxist political order the institution of capital is in conflict with the institution of labour. Western institutions of science and medicine are independent of the institution of pro-life advocates. During the age of enlightenment, classical and neoclassical economic paradigms proved to be in conflict with the institution of church and *vice versa*.

From the pervasiveness of *Shura* as the Islamic institution, is derived the concept of organisation. Its best manifestation is depicted by the *Qur'anic* precepts of richness in diversity, usefulness and moral-material worth generated by varied manifestations of human and cosmic life, and the capacity to distinguish truth from ignorance, when all such realities are premised on the Divine Laws. This principle of organisational behaviour is brought out in the following verses of the *Qur'an* (Asad, 1993): 'Call thou (all mankind) unto thy Sustainer's path with wisdom and goodly exhortation, and argue with them in the most kindly manner: for behold, thy Sustainer knows best as to who strays from His path, and best knows He as to who are the right-guided'.

Likewise one turns to the verses of Chapter 42 ('Consultation') of the *Qur'an* to derive the essence of the *Shura*, its principle of the process oriented world view as universally applied across all systems. The important point to note here is the capacity for creative order to arise from the combined premisses of the *Qur'an* and *Sunnah*. Thus – combined in this way with the normative and the positivistic along with the requisite instruments and interpretive power to apply *Shari'ah* – Islamic organisation becomes

an order in global complementarity, establishing decision making based on the Islamic epistemological textual reference and realising moral-material worth.

Technology and Institutionalism in the Islamic Framework

The role of technology is similarly related to the Islamic perspective of development by cause and effect between these two. Since knowledge is central to the cognitive emergence of the Islamic world view, technology as an instrument to realise that knowledge-centred transformation is also premised on knowledge. It is also interactively established through the same kinds of schema as inferred from Figure 3.1. Such interactions determine technology within the milieu of the same goals and processes that arise from science, society, economics and politics. Thus the total interactive-integrative order of *Shuratic* process once again proves to be the generic basis of technology. This idea of technology is not taken up in isolation from the rest of the factors and systems, rather it acquires its applicative meaning to development within the universally complementary process. Technology thus becomes appropriate and uniquely unified in the same world view to attain the ends of what technology should be intended for. Technology should serve as a developmental instrument arising from the knowledge premise of the world view.

If an alienating form of technology is taken up within the knowledge-based interactive-integrative world view, a conflict is at once generated. The conflict comes about in the claim on resources and costs incurred. The appropriate Islamic technological orientation makes technology less costly and more adaptive to skills. Hence the idea of technology becomes developmental in the socioeconomic sense.

On the other hand, distempowering kinds of technological change is costly, particularly as it is premised on the marginalist substitution principle and the fact that resources cannot be enhanced in the midst of endemic self-interest. Thus a market consequentialism is set in motion between these two technological divides. Substitution creeps into the system. Now, to the extent that individualism becomes pronounced, knowledge formation declines and self-interest increases. Market consequentialism now tilts towards neoclassical and entropic world systems.

To the extent that appropriate Islamic technological treatment wins the day, the maintaining of socially inappropriate technology becomes increasingly replaced, for both private and social cost considerations can drive these technologies due to their popularity. Because appropriate technology becomes cost-effective by avoiding waste and utilising

complementary factors of production, the marginal factor and commodity substitution that characterise neoclassical technological change (Henderson and Quandt, 1971) are replaced by the principle of universal complementarity between goods, factors, resource uses and organisational agents.

Later, in Figure 4.2, we will find that such alienating technologies invariably come to impinge upon Islamic technological choices. The way to minimise these impacts and enhance Islamic choices, is to invigorate the *Shuratic* process. The technological question is then taken up within this purview. The Islamic state would be incapable of moving one way or the other if it failed to sustain the legitimacy of socioeconomic change. Technology thus becomes a human choice to enhance the capacity to search, discover and integrate with the world for material interests. Such material objectives emanate from broader domains of socioeconomic interactions and integration with the moral domain.

THE INSTITUTIONS OF FAMILY AND STATE IN ISLAM

The Islamic Institution of Family

Let us now apply the principles of Islamic institutionalism and organisational behaviour to see what kind of a model emerges for the institution of family. The universal presence of widely hierarchical and interactive-integrative *Shuras* means that the family in Islam can be seen as a micro-cosmic *Shura*. A patriarchal family means that the bread-winning male family member (husband, brother or male guardian) is head of the family. The *Shuratic* process now works to establish mutual interactions among the family members in all matters of life. The text of reference and the decision making that proceeds is *Shari'ah*, Islamic Law. It thus becomes mandatory for the Islamic family to be well-versed in obligatory knowledge (*Fard Ayn*). But beyond this, since the application of *Shari'ah* requires a sound requisite knowledge (*Fard Kifaya*), all family needs for human resource development connects a *priori* knowledge (*Fard Ayn*) with a *posteriori* knowledge (*Fard Kifaya*). In this way, family educational needs establish a particular complex of learning in the educational sector of the community and state.

The learning process that takes place between males and females, between breadwinner and the rest of the family and between husband and wife in the interactive family environment – on all issues – is premised on self-esteem within the complementary framework. This is because, just as

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the family is seen to establish a linkage with the education sector due to wide complementary needs between obligatory and requisite knowledge, so a whole range of similar issues connects the family with the economy and society.

Take the example of employment. In accordance with the *Shari'ah*, the principle of entitlement means that freedom and security must be guaranteed to every family member, and thus every member of society. This raises the issue of ownership, self-reliance and human development for all. While all these economic needs are guaranteed in the *Shari'ah*, it is also necessary for the principle of just and purposeful balance to prevail for the greater moral and security interests of individuals. This calls for an appropriate division of labour between men and women in the world of work. The issue is taken up in society through interactions and the complementarity of moral and economic needs. Such a complementarity suggests that the family is the seat of political changes in society and the economy as a whole, in ways that can bring about moral-material complementarity while not barring anyone from productive activity when this is pursued in the presence of just balance and just purpose. The nature of economic activity now changes in accordance with the preferences of family members responding to the tenets of *Shar'iah*. The community then joins in the discursive process. In turn this is extended to a broader spectrum of similar agents. Finally, in a hierarchical fashion the whole links up with the overall economic, societal and political decision making.

Take yet another case of *Shuratic* responses – the issue of employment and labour force activity by women family members. Let us say that the community *Shura* takes it upon itself to discuss this issue and calls forth a wide range of participants. Families are represented by both men and women in this collective decision making in light of the fact that they constitute members of a family – *Shura*. Such members, called *Sharees*, are required to be in possession of great Islamic integrity and knowledge of *Shari'ah*. Decisions (*Ahkam*) in the *Shura* are taken after a consensual process called *Ijma*. They are then delivered to society at large in the midst of a pervasive knowledge formation process on this issue. For example newspapers, television, electronic media, community discussions, discussion in mosques, in short the whole gamut of micro-*Shuras* are activated to promote interactive decision making and dissemination of the results. The involvement of society at large – constituting all micro-units, all functioning on the same model of knowledge formation, and interacting and integrating with each other – completes the *Shuratic* process on the issue.

It is fundamentally important to keep in mind in all such processes, the functional relationship between the goal of self-esteem and the principles

and instruments of *Shari'ah* on any issue at point within the milieu of knowledge-centred discursions across decentralised groups. The requirement for such an interactive process is representation in it by the highest levels of Islamic personalities. Only when the goal of self-esteem as well-being of men and women, is served not by coercion but by recourse to a Law that is understood through the knowledge-centred process, can there be consensus among and creative continuity of the Islamic society at large (Turabi, 1987).

The family is also the venue where consumption habits are formed. Starting from the *Qur'an* and Prophetic traditions, the Islamic legacy is full of directions on healthy and responsible consumption patterns. The inculcation of consumer preferences at the level of the family and their mobilisation through the whole gamut of hierarchical and interactive *Shuras* across Islamic society leads to linkages between the consumption, production and distributional patterns of the type shown in Figure 3.1.

Finally, in such a manner the micro-level decision making interacts with the various hierarchies in all issues and forms the macro-level polity. Conversely too, the policies, programmes and decisions of polity at large are evaluated by the micro-level agents before pronouncing their verdict. In this way the critical micro-macro interface on all issues is established by the polity-ecology interactions. The success of the *Shuratic* process depends critically on knowledge formation in society through the tripartite interconnection of *Shari'ah* education, discourse and evolution for the issues at hand. Such a process gives legitimacy to the evolving Islamic society.

Consequently the misunderstood problems of an Islamic society being embedded in the non-Islamic outside world, is resolved by the force of legitimisation of the Islamic society mandated to it by the electorate. Its strength is established by the discursive and thus vibrant perspectives of a dynamic process of knowledge formation. The pervasiveness of the process is brought about by the extensive micro-macro interface. Population planning as a macroeconomic issue is taken up by the ethico-economic preferences at the level of family through the wide range of interactions. Monetary policy on the elimination of interest-bearing transactions is established by the preference of the Islamic society for interest-free alternatives bringing moral-material gains, as reinforced by the knowledge-inducing process on this issue. In like manner all interrelationships, policies and the organisational behaviour of agents and systems in the Islamic society interact and integrate through the incessant learning process among the various echelons of *Shuras* (Choudhury, 1992).

In the milieu of establishing an Islamic society by such pervasive micro-macro interface in all issues, a 'global' effect is transmitted to the

non-Muslim world outside. The relationships and magnitude of the Islamic change with the non-Muslim world suggests that the non-Muslim world will have to change its production regimes and technologies to serve the needs of Islamic society, with which it must necessarily relate on all matters. A 'global' perspective of subnational Islamic transformation must then be accepted by and transmitted through the non-Muslim world. Presently, increasing levels of global linkages between the non-Muslim world and its Islamic subnational groups in proving this to be the case (Choudhury, 1995).

The Islamic Family versus the Neoclassical Family

The neoclassical family is guided by its interdependent utility function of family members. Such a utility function can be extended to joint family systems as well (Becker, 1989). In this household utility function, there must be a bundle of substitutes and issues of contention thus must arise. Consequently, for example, a husband's and wife's interests may conflict, resulting in a power struggle. When this is extended to society at large it creates society-wide conflict. An example is the political conflict between men and women that has surfaced in Western societies. Centred around this, an extensive range of problems and effects has been transmitted in the most critical issues – population size, household division of labour, family solidarity, and various social ills. The economic effects of these have been deep. Social security funds now have to be extended to the maintenance of many such interest groups. Affirmative action programmes have had to be put in place and employment has to be competed for more extensively by the disorder caused in the division of work and the work place.

Consider the Edgeworth-Bowley Box diagram (Figure 4.1) on the distribution of power between males and females in relation to the picture given above. The side *MW* measures the combined allocation of household resources of a man (*M*) and a woman (*W*) with regard to work versus children. The side *FW* measures the combined allocation of the household preference for children or work. Figure 4.1 shows the indifference curves of males (*M*) and females (*F*) on the choice of children (*CH*) versus employment (*W*). The arrows in the figure indicate the direction of substitution. These directions could also be reversed. Point *B* indicates that the preferences of husband and wife on the matter of children versus work are not the same. Here $\alpha = (dCH/dW)^M < (dCH/dW)^F = \beta$, these being the slopes of the two household resource allocation tangents denoted by T_1T_1 and T_2T_2 , respectively. The reverse is true point *C*. In order to attain

equilibrium and optimise the household utility function, *B* and *C* must together shift to *A*. This can happen by a combination of income and substitution effects. In other words, the wife substitutes leisure for work, with a consequent increase in household income, and the husband substitutes work for leisure. Point *A* is thus the result of a particular view on household decision making hinging on the issue of employment and income to decide on procreation. Children are then luxury consumer goods in this sense.

Now consider the Islamic family, in which the matter is decided upon by income and children are considered basic needs, whose cost is therefore internalised at the social level and childbearing women play an equally productive role (Eichler, 1985). Examples of such activities are day care, nutritional science and household economics. As the income constraint from employment is not a factor in child-rearing in this case, the points of decision making in the Edgeworth-Bowley Box are not explainable, unless there is simultaneous expansion of the box in the direction of Islamic values. When this happens, every point in the box is disturbed by extensive interactions among social, political, economic and personal factors in household decision making. The neoclassical notions of optimality, equilibrium and stability lose their meaning. The neoclassically stable notion of the contract curve *MF* is now replaced by multiple possibilities of such trajectories, each according to the strength of interactions generated by the knowledge-driven evolution of Islamic dynamics.

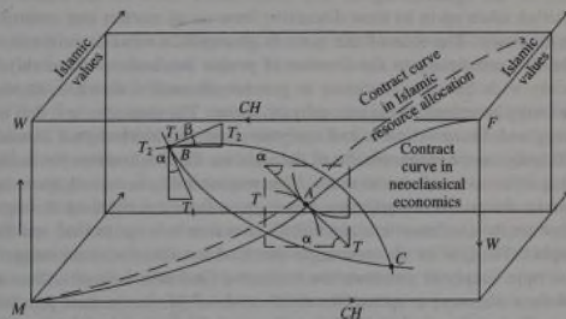


Figure 4.1 Islamic versus neoclassical approaches to household economic decision making

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What we can infer from the analysis of Figure 4.1 is that neoclassical economics and its other prototypes of economic theory in the analysis of micro-phenomena of great significance in socioeconomic change lead to hegemony. In the family utility function, when such a hegemony exists it leads to the kind of conflict that occurs today under the banner of the women's movement against male domination in both the West and East, the Muslim countries being no exception to this kind of cultural stereotyping.

In neoclassical resource allocation, *MF*, the curve connecting the resource endowments of males and females, respectively, determines the contract curve. It is everywhere determined by conflict between *M* and *F* due to the marginal rate of substitution with regard to children and work.

The Islamic social contract curve is formed by releasing the bounds of the Edgeworth-Bowley Box by means of values that are formed by knowledge (that is, extensive interactions). Thus, as shown by the direction of the arrow, the scope of resource allocation expands without substitution. Such a social contract curve opens up opportunities in the plane of knowledge formation, shown here by means of the side of the box in Islamic values.

INSTITUTIONALISM IN THE ISLAMIC STATE

Next we will examine how the Islamic theory of institutionalism and organisation applies to the theory of state. The Islamic state is an embodiment of the epistemological and constructive form of the tenets of *Shari'ah* taken up in its most discursive form on all matters that confront the citizenry. The role of the state in governance remains minimal – extended principally to the creation of proper mechanisms to establish society-wide *Shuratic* processes to generate discursive interactions and continuity premised on the hierarchy of *Shuras*. The state sees to it that its own grand *Shura* interacts and integrates with the hierarchy of *Shuras*. Within this same responsibility of the state are the mechanisms for facilitating information flows to users. This responsibility is vested upon the state by the political legitimacy that it gains from the citizenry at large. However the *Qur'an* points out that all abeyance belongs to God and the Prophet. The *Qur'an* also points out that God has sent divine messengers over time simply to articulate the truth; and God asks believers (*Shuras* and their *Sharees*) to spread the divine code of life in the best possible ways. This *Ahkam* (rule) establishes the responsibility of the Islamic state through its *Shuras* to facilitate the knowledge-formation process in Islamic society (Rahman, 1984).

THE TREATMENT OF MINORITIES IN THE ISLAMIC STATE AS PART OF THE *SHURATIC* PROCESS

Part of the caring society that the Islamic state aims at through knowledge-centred transformation is the treatment of non-Muslim minorities called *Dhimmis* (the entrusted ones). The economic theory of fiscal matters in the Islamic state includes a mandatory *Zakah* (a wealth tax for specific Islamic expenditure) from Muslims. The principle of equity, fairness and distribution requires that *Zakah* claims be limited to Muslims alone.

However *Dhimmis* are subject to a tax called *Jizya*; whose mode of collection and expenditure does not follow the *Zakah* rules. Hence, by the same principle of equity, distribution and fairness, *Jizya* is returned to *Dhimmis*, although there is no clearcut rule in this regard. Only broad rules of inference can be premised in the *Qur'anic* principle of just balance and just purpose. Such a generalised practice of fair treatment was found among the Ottomans in the area of Bosnia-Herzegovina when it came under their rule. Historical records show that through the *Jizya* system of minority taxation and fiscal expenditure, the social and economic status of these people improved considerably under Ottoman rule in this region (Encyclopaedia Britannica, 1981).

MINIMAL INTERFERENCE BY ISLAMIC STATE IN POLITICAL ECONOMY

Apart from *Zakah* and *Jizya*, the Islamic State can levy additional taxes, for example in times of war or disaster. Taxes can never be raised for purposes of deficit financing.

This last observation points out the minimal responsibility of the Islamic State to be limited to facilitating the *Shuratic* process, security and essential welfare, defence and limited fiscal and monetary policing. The minimal government interference principle points out that one of the functions of the Islamic State is to promote extensive market transformation. Yet the concept of market is one of an 'ethicised' market, as explained in Chapter 3. Thereby, the market process in the midst of *Shuratic* induction is seen to be an institution by itself toward realising the moral objectives through human participation in visible social contracts in the market order. The critical principles and instruments of Islamic political economy towards activating the polity-market interactions in this regard were explained in Chapter 3. As the economic instruments of the market are

centred around the mobilisation of capital through participatory outlets in the absence of waste and inducing productive shares for distribution, means that government can establish joint ventures with the private sector and take measures to encourage the development of the private sector in this way.

Such a relationship between the Islamic state and market development was evinced by the Prophet and early Muslims in the city state of Madinah among the *Ansars* (Madinite Muslims, meaning helpers) and the *Muhajirin* (Muslim emigrants). The constitution of the state of Madinah was used to organise entrepreneurial cooperation at the grassroots level.

Now the objective criterion before the Islamic state is a list of material objectives formed by their induction with knowledge formation, as this is enabled through the *Shuratic* process. A constraint on attaining such an objective is the limited amount of revenue that can be obtained through fiscal measures, but additional revenues are collected through joint ventures with entrepreneurs in the private sector.

Monetary policy by the Islamic government is limited to guiding the development of an interest-free economy and controlling the supply of currency money (endogenous money), which is directly related to the value of productive activity. Consumer demand is taken up along with income distribution and productive activity. In general therefore, beyond the specific functions of an Islamic state, the rest of the government's functions fall within the framework of an interactive polity-market process (Choudhury, 1994a; Laidler, 1989; Desai, 1989).

The above minimal-rule perspectives of the Islamic state are derived from the *Qur'an* and the *Sunnah* of the Prophet in Madinah. Such *Ahkam* (rules) are drawn from various *Qur'anic* verses: (1) God will take out the uncertainties from the believers and make their condition secure (security and well-being); (2) Everything comes from God and returns to Him (primacy of *Shari'ah* in the Islamic State); (3) Walk not God's earth in arrogance (moral-material perspectives in management of commons); (4) The diversity of life attained by its moral-material worth (the 'ethicised' market); and (5) The purpose behind creating nations and tribes (groups) so that human beings would understand each other through extensive cooperation.

The above *Ahkam* describing the nature of the Islamic state are illustrated in Figure 4.2. The expanding concentric circles show how one system merges into another in order of generic importance. Each of these concentric circles is spanned by strings of *Shuras* denoted by $S_i, i = 1, 2, \dots, 6$. There are interactions among these *Shuras* outward and inward, as shown by the direction of the arrows. The Islamic state is shown to have

minimal government intervention. Its affirmation and legitimacy are established by means of each of the systems in the knowledge-forming order. The figure also shows that there are extensive interactions between the Islamic social, economic and political systems and the external world. Here too the interactions take place through micro-*Shuras* of each and every system. These interactions, depicted by broken lines, arise from the levels of the micro-systems proceeding to the macro-system of state, or they arise from the level of the state and are confirmed by the individual micro-systems.

CONCLUSION

Our study of institutionalism, which took up the concepts of institution, organisation and technology, together with specific examples of these, showed that all systems emerging from purely Western origins are products of methodological individualism. Methodological individualism is

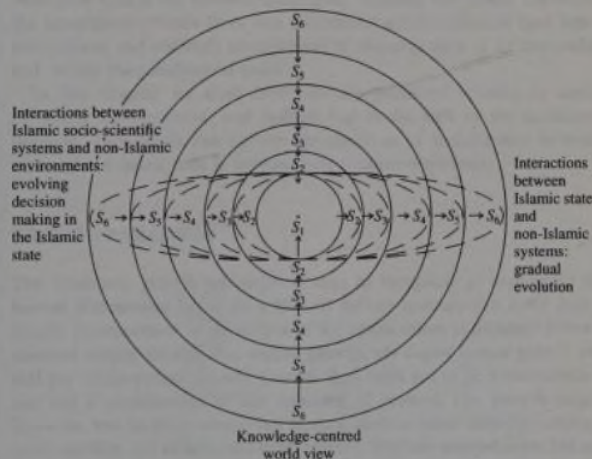


Figure 4.2 The interactive relations between micro-*Shuras* and the Islamic state in a national and global perspective

intrinsic to these systems. We have seen that, irrespective of whether we start from the classical, neoclassical or evolutionary institutional view, there is a unique social Darwinian premise in all of these, and that methodological individualism and its enactment become increasingly pronounced as the Darwinist processes intensifies.

An alternative to the Western concepts of institutionalism, institution, organisation, technology and change, is the knowledge-centred, interactive-integrative view of socioeconomics. This system is found to be dynamically stable and purposefully evolutionary, not disequilibrating and random. There are also precise *Shari'ah* provisions for dealing with the nature and *modus operandi* of institutional behaviour, interactions and extensions in the Islamic political economy, and these too have been discussed in this chapter.

5 The Islamic World View and the Question of Development

Economic development is a multifaceted concept. When development theorists started to question the economic growth paradigm and the relevance of growth as an economic target, growth itself was seen to be incapable of explaining much of the inherent nature of distribution, equity, ethical factors encompassing modes of production, consumption, technology, self-reliance and demographics. The most challenging task in development theory, as in economic theory, has been to integrate distributive equity with economic growth in such a way that none of these goals are substituted for the other along a developmental regime. The economics literature has not provided a solution to this problem because of the epistemological bias it has towards materiality, markets and ethics. Liberating the economics schools from this entrenched epistemological (and hence institutional and societal) arrangement of occidentalism is an impossible task within the neoclassical order.

In this chapter we shall look into the problems relating to socio-economic development, and deduce that in the face of the occidental impasse, only Islam can answer the question of simultaneity between material and moral ends in economic development regimes.

GROWTH PARADIGM

The economic growth paradigm is seen as incapable of explaining the human dimensions based on a host of factors that involve more than a simple measurement of the output of the nation taken in different forms – nominal output growth, real output growth, per capita output growth and real per capita output growth. Growth thus turns out to be a measurement and not a qualification of the structure of growth. The growth target, however, has its own reinforcing factors, such as price stability, employment stability and deficit (and debt) control. Welfare measurement has not been implied by the rate of economic growth. Per capita outputs can neither explain the distributive conditions that are necessary to attain

social welfare nor can they identify the technological choices and product specifications that are necessary for the sustenance of human welfare.

In the neoclassical aggregate production function the measurement of output takes on meaning only as potential output linked to the full employment of factors of production, price stability and optimum efficiency. In this way the role of institutions, policies and programmes becomes marginalised by the assumed existence of such price stability, full employment and hence optimal output situations. In fact there is no methodological reason for an institutional presence in the neoclassical aggregate production function. By the same token, there is no place in this school for the consideration of any special programmes for targets such as equity, fair distribution and ethical considerations. In this sense the goal of social welfare remains unimportant. In fact the neoclassical aggregate production function is not devised to address the question of distributive equity. Economic efficiency remains the foremost goal (Phelps, 1989).

In the previous chapters I expanded on the neoclassical reason why economic efficiency is the foremost goal: the absolute necessity of the marginalist substitution rule to prevail in neoclassical resource allocation in order to determine prices, output and thus social welfare.

SOME ALTERNATIVE VIEWS ON ECONOMIC DEVELOPMENT AND SOCIAL WELFARE

The neoclassical notion of social welfare taken up in the framework of utilitarian general equilibrium analysis is well-known (Quirk and Saposnik, 1968). What needs to be questioned, however, is whether the impact of ethical and institutional values can be methodologically integrated with this analysis. This is the same as asking, what is the consequence on resource allocation of considering distributive equity in the neoclassical model?

Rawls pursues a similar line in his book, *A Theory of Justice* (1971). The idea has also been enunciated by Boulding (1953). According to Rawls, since utilitarian analysis of general economic equilibrium cannot answer the ethical and institutional question, resource allocation points cannot be determined on the optimal production frontier. Consequently the social indifference map of welfare economics is not available. But then Rawls uses his concepts of the 'original position' and 'difference principle' to enact a perfect equality state to obtain his own answer to the problem of social welfare – improving the economic and social conditions of the most underprivileged through institutional changes. Rawls is an

ethicist, who essentially uses the second-best conditions of neoclassical welfare economics to bring about a preferred social state when the first-order conditions of equilibrium are disturbed (Henderson and Quandt, 1971). When this state comes about, the realisation of distributive equity in a world that is otherwise being driven by the force of economic efficiency alone (market transformation), at once throws it into conflict with Rawls' institutionally regulated goal of distributive justice. Thus, by simply considering fairness through distributive equity as a preferred mode of resource allocation, Rawls misses the greater need for total social justice and its realisation through an altered market transformation, which could otherwise be treated in Rawls' original position, where perfect equality is assumed to rule. But in the original position decision makers assume monadism, and hence independence (Choudhury, 1993).

It is also methodologically legitimate for Rawls' institutional arrangement to attain second-best resource allocation points. This is because the attendant perturbations of increasingly unequal institutions render the attainment of price formation impossible in any kind of general economic equilibrium. Thus by retaining the neoclassical methodology taken up in its second-best form, much of the Rawlsian 'primaries' (for example basic needs, goodness, equality, justice) become non-economic goods (Sen, 1989). It is then useless to include them among any objective criteria of social welfare, unless the methodology is changed for something more versatile to explain price determination in the midst of social perturbations.

Boulding's social welfare treatment (Figure 5.1) is as follows. Let X_1 and X_2 be two inputs, say security and growth, both of which need to be

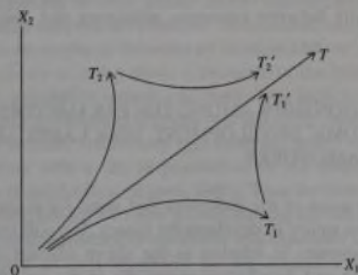


Figure 5.1 Boulding's total social system in the development framework

jointly enjoyed to attain social welfare. Substituting X_1 for X_2 makes holders of X_1 better off than holders of X_2 , as shown by the trajectory OT_1 , and *vice versa*, as shown by the trajectory OT_2 . Hence, as far as equity is concerned a proportionate amount of social welfare is sacrificed. This is also the Rawlsian view of social welfare, which is no different from the neoclassical one except that resource allocation is explained in the second-best sense with institutional intervention to establish equality. Therefore an organic evolution would be required to establish complementarity between X_1 and X_2 . Now the trajectories are made to converge under competition to OT by means of OT_1' and OT_2' .

How is this question of organic input taken up by Boulding? In the evolutionary institutionalism of Boulding, the question is addressed as follows: like the amoeba struggling for its survival, X_1 and X_2 must compete between themselves if they are to attain organic evolution (Boulding, 1972). In the literature on economic growth, this conflict is brought out by the market order positing itself in favour of growth and against the goal of distribution. Consequently neither institutionalism nor resource allocation in the Boulding-type universe explains social welfare.

From the above two presumed exceptions to the idea of social welfare in the literature on institutional economic and political philosophy, it is found that such a notion does not exist either in economic growth theory or in neoclassical form of institutionalism. The new concept to comprehend the moral and ethical considerations of economic growth and distribution is social well-being.

The idea of social well-being means that an inner structure of economic growth must be established to attain socioeconomic development. Goulet identifies such a groundwork in the new moral philosophy and points to its organic character premised on an ethico-economic system that enables complementarity between economic efficiency and distributive equity (Goulet, 1974).

INTERRELATIONSHIPS AMONG THE PARAMETERS OF SOCIOECONOMIC DEVELOPMENT: NEOCLASSICAL AND ISLAMIC FRAMEWORKS

Now consider some of the indicators that stand for economic efficiency and distributive equity in development theory. We will treat these developmental parameters in relation to the above concept of simultaneity between growth and distribution essentially in the way that this defines complementarity in the development process.

1. *Economic efficiency* = {rate of economic growth (g), wealth (W), price stability (p), deficit control (govt. expenditure, G , tax revenue, T), cost minimisation (C), technological change (τ), human resources (h), investment (I), trade (M)}.
2. *Distributive equity* = {employment (L), income and wealth distribution (D), population growth (P), self-reliance (R), caring society (CS), security (SC), entitlement and property rights (EN), institutional forms (IN)}

Simultaneity among these variables is explained as follows. Economic growth is the result of resource mobilisation realised by means of utilising all of the factors endemic to it in the vector of economic efficiency. But now wealth cannot be formed without entitlement and property rights. When entitlement and property rights exist, then human resource development is necessary. When human resource development exists, employment, income distribution and technological change are realised. With technological change, earning and property rights, comes about investment. This enhances economic growth. With human resource development comes about a nation's advance to a caring society, social security and self-reliance. Human resource development also brings about an improvement in trade and revenues. This in turn enhances wealth and deficit control. Deficit control in turn stabilises prices. With price stability comes cost minimisations of every kind. With deficit reduction there is relief from the tax burden. Above all, wealth and economic growth improve, which increases the possibility to sustain the population at a higher level of consumption for the sustenance and enjoyment of life.

The question of population deserves further examination in the context of the interrelationship between labour market activity, wealth, economic growth and human resource development. In economic analyses, increased human resource development followed by increased labour market activity by women is shown to bring about a decrease in the birth rate. By the same argument, population growth – because of the increased pressure this puts on social and government services – is shown to cause impoverishing growth, higher deficits, inflationary pressures and lower investment. Just the reverse exists with a fall in population in the midst of a capital-intensive mode of production. (Kenen, 1985). Thus the birth rate is seen to be a neoclassical trade-off between growth and population size. This neoclassical household reproductive behaviour was explained in Chapter 4.

The implication of cost constraint for the limited scope of meeting household income needs and national wealth, is thus fundamental to the neoclassical explanation of the population-growth trade-off. But if

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appropriate technology could be continuously improved upon, the limitations posed by population increase versus wealth generation would not exist. Every technological improvement would then make a greater supply of goods available at lower cost. Hence prices would stabilise and real output would increase. This would provide increased consumption benefits and investment possibilities. The cycles of productive regeneration would then continue in perpetuity.

TECHNOLOGY AND TECHNOLOGICAL CHANGE

The questions then are: what is that form of technological change that remains permanent; and how can such technological change be made possible? First, technology – as defined in Chapter 4 – is an instrument that is emanates from and reinforces the principle of knowledge formation realised by the interactive – integrative process. In this way, technology is the cause and effect of the cognitive medium of processing knowledge. It therefore reinforces a globally complementary process, as explained in Chapter 4. Second, the goods consumed and hence produced in this system belong to the permanent stock of technologically induced basic needs (Meier, 1995). Such basic needs are like the Rawlsian 'primaries' with increasing ethical values in them. These phases of transformation are conveyed by knowledge formation that is transmitted through the choices that society comes to make during the course of its evolution.

According to Imam Shatibi's characterisation of social well-being related to public purpose (*Al Maslaha wal-Istislan*), goods that are necessary and provide comfort are primary goods. Luxury goods remain marginal in Shatibi's system. Public policy and knowledge inculcation through the whole gamut of decision-making units in society as a whole are jointly promoted to generate such primaries. They are directly related to the level of knowledge flows that are instrumentalised in human use and enjoyment by the corresponding process of technological induction. The Shatibi kind of household consumption (hence production) menu in the absence of waste must logically result in price stability and lower social costs. These conditions in turn help to interlink various sectors of the economy, starting from the household linkage with the social economy and its extension to the nature of work, wealth, growth and distribution (Choudhury, 1993a; Ahmad, 1991).

Since the role of knowledge flows in realising the interactive-integrative nature of Islamic political economy remains so fundamental, this alone becomes epistemological in regenerating the entire system of

interrelationships between economic efficiency and distributive equity, as explained above. The knowledge flows in society at large also place responsible consumption behaviours at the centre of individuals and households in society at large.

Earlier we described the circular causation and continuity model of unified reality that forms the centrepiece of the *Shuratic* process. This most critical and central methodology is the politico-economic manifestation of *Tawhidi* epistemology (Choudhury, forthcoming). God-consciousness at all levels of society is therefore of prime importance in any transformation process. In Chapter 4 the Islamic state was shown to be responsible for enhancing the knowledge process at all levels of society using the *Shuratic* process.

In the presence of such a knowledge-centred politico-economic order the principle of universal complementarity totally replaces the neoclassical marginalist substitution relationship between growth and social well-being. Social well-being becomes a central concept in the Islamic model of socioeconomic development. It is realised in a knowledge-centred order, where technology is seen as the cognitive instrument of the evolving knowledge formation of society toward establishing complementarity between production, growth and distribution (Daly, 1992).

PARAMETERS OF SOCIOECONOMIC DEVELOPMENT IN KEYNESIAN AND ISLAMIC FRAMEWORKS

Keynesian Approach to Growth and Development

Economic development, like economic growth, is a macroeconomic aggregate of economic activities interrelating with each other in the formation of conditions of national output, price stability, factor employment, choice of technology and social welfare. Underlying such an interrelated view of economic development is the important issue of intersectoral linkages. Without this very important perspective in development planning, the fruits of economic growth and development remain unbalanced. Distribution does not take place and adverse consequences can occur: either entitlement and social security do not exist or these are realised by expansionary government spending to service poverty, unemployment and social security in the face of the capitalists' choice of capital-intensive technology. National deficits increase and cause inflationary pressures to appear. The ensuing higher interest rates, decline in investment and external sector imbalances adversely affect economic and social health. Such

conditions cause massive volatility in the exchange rate mechanism across a wide spectrum of economic, political and social variables (Gwartney and Stroup, 1993).

We will now examine the above economic dynamics in terms of intersectoral consequences within the framework of Keynesian macroeconomics. We start with the recognition that the aggregate production function and potential output is a short-run national product, and therefore Keynesian macroeconomics is able to hold fixed a price level. In Keynes' view, in the short run non-inflationary economic growth is possible. In the short-run aggregate production function, capital stock remains fixed. If, however, capital stock is allowed to vary, then once again technical substitution occurs between labour and capital inputs. Such a factor substitution assumption is intrinsic to the existence of a neoclassical production method.

Now if we allow unemployment to exist in the neoclassical model, following Keynes' treatment of underemployment equilibrium, the price level becomes partially flexible. This causes Keynes' aggregate supply curve to be disturbed by a series of classical supply curves, thus showing, that the price level cannot remain fixed around the expected full-employment points, as otherwise Keynes' would like it to be at the point of full-employment output. (Sawyer, 1982).

In the context of intersectoral linkages, the short-run and long-run implications of Keynesian macroeconomics are several. Non-inflationary growth can not be realised and therefore, economic efficiency and income/wealth distribution can not occur. Inflationary pressures along the longer-run classical supply curves interspersing the short-run aggregate supply curves of the Keynesian type means that output expansion by means of fiscal expansion is now costly. Hence governments cannot undertake the desired amount of social spending. In addition inflationary pressures cause a transfer of income from the private sector to the public sector. Now taxes increase in the midst of inflationary pressure. The agricultural sector suffers the most when government spending declines, and the government turns increasingly to the manufacturing sector to keep up the momentum of the growth required to generate tax revenues. Likewise the private sector moves resources away from agricultural activity into manufacturing activity. In the extreme case of such intersectoral substitution and socially adverse resource allocation, impoverishing economic growth ensues.

In the Malaysian industrialisation programme, for example, the resource shift from agriculture to manufacturing has been particularly pronounced. In terms of growth, the manufacturing sector has been responsible for

almost all the growth in the economy, and this is expected to continue in the future. The growth of agricultural productivity has remained low, and this has proved to be both the cause and the effect of lower private sector investment in this sector. Governments everywhere have funded many of the projects and services in the agricultural sector, but it has been found that such expansionary government expenditure is associated with low productivity returns. The mismatch of wage rates with productivity growth and the excess demand for economic wants rather than needs, now supplied by the manufacturing sector have proved to be the cause of the recent increases in inflation in Malaysia (Jomo, 1994).

We find in these kinds of economic relations the adverse consequences one would expect to exist between a Keynesian approach (fiscalism) and a neoclassical approach (privatisation) to development. In the case of Malaysia, this kind of disruption is found to be leading to inflationary growth in the midst of increased spending in the agricultural sector by the government. Poverty alleviation, which has been exemplary in Malaysia, has thus been attained greatly by the costly means of government spending when agricultural productivity remains low and intersectoral shift from agriculture to manufacturing abounds (Alias and Choudhury, 1996).

In the midst of intersectoral shifts of resources, monetary policy plays a neutral role in distribution. In the face of a manufacturing bias in development and the agricultural sector remaining the breadbasket of a nation, money supply is generated by expectations of private sector growth and the number of projects to be financed and hence by the growth orientation of the manufacturing sector. To the extent that such a supply of money pursues speculative demand in the manufacturing sector, the money supply becomes inflationary. In the agricultural sector, government demand for money is followed by lower productivity growth. Hence the money supply mobilised for the agricultural sector has always proven inflationary. Banks in the manufacturing sector compete to set interest rates, which in turn create money independently of the central bank. In this sense monetary policy (interest rate setting) has become neutral in Malaysian economic development. The role of money in general is inflationary and non-distributional in the Keynesian and neoclassical systems when intersectoral shifts in resource use due to economic growth abound.

In the Keynesian approach to economic development, institutions are found to play a significant role through fiscal and monetary policies. But such policies can not create change in the ethical approach to economic development. Macroeconomic policies do not exist to transform the

human proclivity for given preferences. Rather they are used to establish a workable equilibrium when disequilibrium occurs in the economy as a result of adverse aggregate relationships between price level, output and employment. The greater the role of institutions in this economic milieu, the more intense the developmental disequilibrium. This brings about a greater degree of use of market forces towards realising economic growth (economic efficiency).

Conversely, the the smaller the role of government, the better the market equilibrium. Markets now operate more efficiently, but the prospect of socioeconomic development is displaced. Hence economic development as a way of realising equitable distribution with ethical preferences cannot be attained under Keynesian-type institutionalism, and there is a trade-off between economic growth and economic development. These Keynesian development perspectives in macroeconomics, which appear to be of the neoclassical type, were formalised in what came to be termed the microfoundation of macroeconomics. One of the manifestations of this approach is the trade-off between price stability and employment (Phelps, 1970).

Technological choice in the Keynesian-neoclassical approach to growth and development in the institutional framework thus reflects a manifestation of private demand in the economy at large. As shown in Chapter 4, technology is once again seen as a cause and effect of a process that provides the medium for realising the objectives of the system in which the technology can be effective. In this particular system, where the shift is towards the market for manufactures, technological change exists to intensify the situation, resulting in a greater substitution between the agricultural sector and the manufacturing sector. The institutions responsible for steering economic change away from such marginalist substitutional regimes must either come up with costly alternative technological innovations or opt for a completely new regime. Yet the structure of technological change repeats this state of the economic impasse in all such Keynesian-neoclassical alternatives. This has methodological implications.

THE ISLAMIC ALTERNATIVE TO THE KEYNESIAN DEVELOPMENT PARADIGM

Distributional and moral development goals are fundamental to Islam but so too is the market process. The link between these is explained by the presence of polity-ecology (market) institutional relations. This is the

global nature of the *Shuratic* process, now pertaining to economic growth and development. In the economy-wide sense, the Islamic approach has microeconomic foundations, for ethical, ecological and market preferences are all formed at the microeconomic and microinstitutional levels. Economic growth and development policies therefore arise from micro policies. Let us examine this issue more closely.

Economic growth and development in the Islamic politico-economic approach are realised by participatory instruments interacting between economics and society. The principal participatory instruments are profit sharing, equity participation and joint ventures, or various combinations of these. An important participatory instrument is foreign trade financing, another is a portfolio mix of the abovementioned financing instruments.

The participatory instruments are specifically measured. Profit sharing is measured by the weighted average of the total profits produced through participatory ventures. This weighting is the ratio of capital to time and the wages forgone by a participant, all taken up as investment inputs by the participant. These sum up to total investment inputs in the group. Participation also means dynamic interactions and cooperation among the participants on an equal voting basis, irrespective of their individual investment contributions. While profit sharing takes place between capital owners and workers, equity participation can be among all kinds of participants. In equity participation, shareholding is an important financial instrument.

Joint venture is a broader concept of cooperation that can be based on the sharing of a wide range of inputs that are not directly limited to invested capital or resources alone. Management and training inputs are also costed and they carry economic returns in this arrangement.

Foreign trade financing is mobilised by the promise of short-term yields on tradables. Such yields come about as follows. First, they arise from direct export revenues. Second, they come about from the benefits of contractual arrangements between trading partners, such as alleviation of foreign exchange, storage and other requirements associated with trade. Third, they are caused by the revenue generated from service charges as mark-up received by the middle agent in foreign trade flows. Fourth, the mark-up revenue, when collected by a development finance organisation such as the Islamic Development Bank, becomes a development fund to be shared by the trading partners and the organisation according to needs.

A combination of these modes of financing means a weighted sum of the yields from each of the portfolio components. The method of diversifying the portfolio plays a crucial role in risk diversification. The extent of risk diversification depends on the diversity of the portfolio mix and the

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promise of yields. Inturn this depends on the number of participants, management skill and profitability. Hence the degree of participation and managerial acumen as institutional factors are combined with profitability as a market factor, and these cannot replace each other (Arrow and Lind, 1970).

Increased socioeconomic participation means intensification of the *Shuratic* process. Effective managerial acumen means increasing knowledge flows and their affirmation and confirmation by the participants when premised on application of the *Shari'ah* to the financial enterprises in question. Profitability is the result of the one-to-one correspondence that is established between *Shuratically* developed preferences for consumption, investment, enterprise, distribution and growth. Such preferences are developed globally in the *Shuratic* system by means of the principle of universal complementarity.

In the midst of the above kinds of *Shuratic* transformation, not only the method of financing and distribution but also the appropriateness of projects, ventures, instruments and enterprises must be in accord with *Shari'ah* rules. We have seen earlier that these rules emanate from the fundamental attributes derived from the *Qur'an*: just balance, just purpose, certainty, well-being and creative order (resulting in the evolution and continuity of the *Shuratic* process). When determining the appropriateness of instruments and ventures in the light of *Shari'ah*, great effort is made to derive the rules from epistemological sources. This is the process of *Ahkam* formation on specific issues underlying the *Shuratic* process and is realised by means of *Ijtihad* (interactions = discursions) and *Ijma* (social consensus).

The financial institutions are now seen as a means of facilitating profitability and bringing about a matching of partners in the overall joint enterprise in accordance with *Shari'ah*. This also means that all institutions involved in the development process are knowledge-creating in light of the *Shuratic* process and human resource development. Even at the highest level of the learning challenge – something of the nature of Drucker's knowledge society in the post-capitalist transformation – the attributes are kept as the centrepiece of technological change (Drucker, 1993).

THE NATURE OF MONEY AND MONETARY POLICY IN ISLAMIC POLITICAL ECONOMY

In the midst of knowledge-induced technological change, institutional conduct and the basis on the microfoundation of market transformation, is

the relevance of money and monetary policy in the Islamic framework. We begin with the simple relationship that money is a contravention for holding the liquid resources needed to provide the functions of exchange and store of value goods that are exchanged for money. We saw in Chapter 1 that the Islamic market is a system of exchange of knowledge-induced material things. Through such exchange, within the Islamic framework markets were shown to become 'ethicised'. Hence knowledge becomes the sole exchangeable in the moral-material, complementary, cognitive forms of this system. Money, then, is necessary to establishing such a product demand in the market order.

Money, therefore, does not come about through an exogenous supply of liquid resources for the pursuit of speculative demand for goods and ventures that have not hitherto been realised in exchange. It is not to be used for an outlet for which there is not enough evidence to ascertain the realisation of the exchangeable as a viable product. Money cannot be outlaid on project development not carrying a moral-material worth premised in *Shari'ah*. Hence the function of money must be to service those goods/projects that are immediately realisable and are capable of being developed. Thus there is a direct relationship between product/project development and the quantity of money put into such ventures (Hayek, 1978).

It is important to note the direction of economic argument by means of which money is created – that is, from the side of demand in the real economy. Money thus monetises the real economy. Money thus loses its independent function in the economy. Besides, for money to function in this strict fashion from the side of the real economy during the monetisation of the economy, the quantity of money in circulation must related closely to the volume required. Thus a close demand-supply match is brought about by means of the *ex-ante* and *ex-post* quantity of money in the real economy (Choudhury, 1983a; Doak, 1989).

Money, then, is a function of the price of goods transacted. Since no prices can exist in the Islamic economy prior to the realisation of a market transaction, the actual (*ex-post*) money supply results from an actual market exchange. If however, the planned money supply (*ex-ante*) is used for future development, then the expected prices of realisable goods/development projects, as determined by the technical *Shura* of the monetary authority, must be determined by the expected quantity of money in terms of expected prices.

But in terms of the relationship between real transactions and their monetised values, there is also the important aspect of profitability and generation of national output. But we note here that, in order for money to be in

accord with the product/project needs, it must be a of valuation contra-vention. Thus, money and financial institutions become micro-oriented in Islamic political economy. Prices, profitability and output entering the quantity of money equation to determine the quantity of money required to service the monetisation of such real transactions, must therefore, all be micro-level variables (Choudhury, 1989a). The *Qur'an* points to the pervasively universal reflection of diversity (micro-phenomena) in God's creation, implying the microfoundation as the carrier of knowledge and reality in the *Tawhidi* world view.

Money now becomes an endogenous entity in the Islamic economy. It is now seen simply as a currency value of prices (Walras, 1959). In turn, since prices are formed by exchanges in volutioning goods and services, and profits arise from such transactions in the moral-material sense, there evolves an interactive mechanism to determine money supply in the Islamic political economy. The interactive money-transaction mechanism and the resultant definition of money in Islamic political economy can now be briefly formalised as follows:

$$M \Rightarrow L_1(p, \pi, y) + L_2(E[p], E[\pi], E[y])$$

where M denotes quantity of money, p denotes price, π denotes profitability of the profit-sharing rate, y denotes output, which may be measured as income or value added, L_1 denotes the liquidity needed to meet actual the transaction demand for money, and L_2 denotes the expected liquidity needed to meet the expected transaction. But such a transaction must be feasible and acceptable to the financial *Shura*. E is the expected value of the variables shown, and The arrow denotes the direction of the relationship.

In the above relationship, $p \rightarrow Y \rightarrow \pi \rightarrow y \rightarrow p$. Hence the following expressions hold true: $p = f_1(\pi y)$; $y = f_2(p, \pi)$; $\pi = f_3(p, y)$. Above all these things, including the above money equation, is the encompassing knowledge-induction process emerging from the interactions among and integration of all those sectors – including the financial institutions – that determine the quantity of money required. Hence the complete system of money transaction is shown by the interactive relationship among M , p , π and y , as shown in Figure 5.2.

In Figure 5.2, points a_1 – a_3 , b_1 – b_3 , c_1 – c_3 and d_1 – d_3 are knowledge-induced by interactions among sectors. This enables these points to evolve one from the other towards I_1 , I_2 , I_3 and I_4 , with the multiple possibilities emanating from these. Without this critical, knowledge-induced evolutionary process the trajectories will be of the nature shown by A_1 – A_3 and so on.

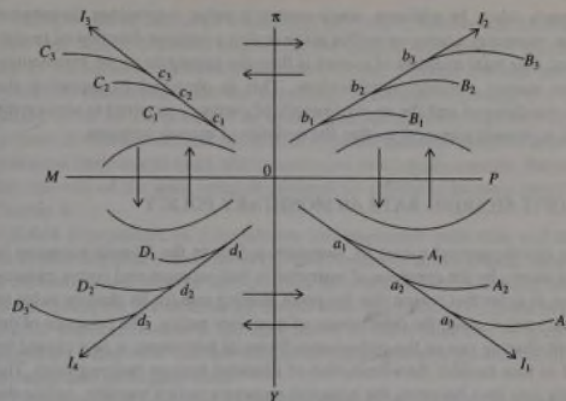


Figure 5.2 The money-transaction interrelationship in Islamic political economy

The latter is the usual consequence of the Keynesian and quantity theory of money, showing that increased money supply brings about inflationary price increase, which in turn dampens investment and spending. Hence although p increases, this is followed by π , Y and M falling, bringing the economy into equilibrium at a higher level of economic disorder.

The most critical problem in this relationship is the price level. For even though the next phase of the economy picks up from a higher level of π , y and M , the higher prices that ensure cause a loss of social welfare at every corresponding phase of the economy. In other words, although Western society is materially better off today than it was a decade ago, distributionally it is worse off, particularly in terms of social welfare.

It is also important to make another distinction between the quantity theory of money in mainstream economics and the nature of money in Islamic perspectives. In the latter there is a precise causal relationship between prices and money. Hence monetary policy does not operate independently. It is used either to service a specific demand (L_1 , as shown above) or it is used to generate a well-defined expected real activity (L_2 , as shown above).

The definition of endogenous money in the Islamic economy is thus the monetised value of real transaction services in terms of creating a volume of currency that makes *ex-ante* demand and *ex-post* supply of money equal

to each other. In addition, since currency value determines investment flow, monetary aggregate in this sense is also a positive function of investment. The total quantity of money is then the aggregate of the microenterprise money demand specification. This is obtained by equating the *ex-ante* demand and the *ex-post* supply of currency required to service the real economic transactions that the quantity of money supports.

PROFIT-SHARING RATE AS MONETARY POLICY

The developmental nature of monetary policy in the Islamic economy is thus shown by the presence of instruments that promote real sector transactions. It is for this reason that the profit-sharing rate (or its shadow value as profit rate) is made the determinant of monetary policy. The presence of the profit-sharing rate as the endogenous financial instrument is first caused by and in turn enables the elimination of financial interest (interest rate). The profit rate then becomes the accepted monetary policy variable, unlike the rate of interest for the monetarists and the Keynesians. Furthermore, in the knowledge-centred region encompassed by (a_1, a_2, \dots, d_3) in Figure 5.2, the *Shuratic* influence here and the *Ahkam* formation associated with this make the target of interest rate elimination to be first derived from the textual reference of *Qur'an* and *Sunnah*. It is then reinforced by affirmation and confirmation of the creative order of knowledge flows through the well-being effect. The well-being criterion serves as the objective criterion for measuring the developmental effect, that is, the moral-material complementarity of the developmental perspective of Islamic political economy. An example of such a criterion of social well-being was termed by Imam Malik and Imam Shatibi as *Maslaha wal Istihsan* (the public purpose). A similar well-being concept was given by Imam Ghazzali when he linked money to the usefulness of moral worth (Ghazzali, undated).

FISCAL POLICY IN THE ISLAMIC POLITICAL ECONOMY

The principal instrument of fiscal policy for the Islamic state is *Zakah*. Additional taxes can be imposed as exceptional instruments in times of dire need, such as war, famines and other calamities. This marginal nature of taxation beyond the mandatory take of *Zakah* must be explained further. Here we must aim at proving that *Zakah* plays a crucial role in linking up the *Shuras* to ethicised markets in the Islamic political economy.

The low rate of *Zakah* on wealth (2.5 per cent of wealth held in liquid form plus selective assets) means that the Islamic state plays a minimal role in the socioeconomic development process. Markets are best left to operate by themselves once the knowledge-induction is continued in the market order by the presence of agent-agent interactions. Markets form systems of visible contracts rather than invisible systems. *Zakah* is used to guarantee basic needs to all who cannot earn an adequate amount. Beyond this, the role of the state remains minimal, as explained in some detail in Chapter 4.

Zakah expenditure as a mandatory and organised collection and disbursement of public resources by the fiscal authority of the Islamic state or at the community level is derived from the stock of wealth to meet basic needs. Hence the use of taxes for deficit financing is not to be found in the Islamic political economy. All aberrations to these rules can be seen as temporary exceptions that are subject to correction with the evolution of any state into an Islamic state.

The non-deficit or phased in levels of deficits arising from the reorganisation of the developmental priorities of an evolving Islamic state gives the following national income accounting equation:

$$Y = C + z \cdot (Y - C - I - S - L) + I + S.$$

After simplification, and taking the value of the *Zakah* rate to be 2.5 per cent, we obtain

$$Y = C + I + S - 0.33L,$$

where, Y denotes gross national product; C denotes consumption by *Zakah* payers; I denotes spending in investment; S denotes other spending; and L denotes loans, when deficit financing still exists.

The national income accounting equation above shows (1) that in the absence of deficit financing, that is, as the economy transforms into an authentically Islamic form, *Zakah* is fully internalised, because a separate government expenditure variable is absent, and (2) as long as loans exist, the value of Y is shown to be drawn down by the size of the loans. The inference to be derived is that deficit financing is increasingly avoided in a transforming Islamic political economy. The ethicised market process carries the force of the transformation process, with the Islamic state providing guidance and information flows. Even in such a case, the *Shuras* exist in the economy-wide sense. The residual revenue requirements come from government joint ventures with the private sector and marginal taxes beyond the specific wealth tax of *Zakah* to meet exigencies.

COMPARING SCHUMPETER-TYPE ENTREPRENEURSHIP WITH THE ENTREPRENEURSHIP OF ISLAMIC POLITICAL ECONOMY

The Islamic world view is clearly a compound aggregation rising from the grass-roots level and thereafter hierarchically ordered through a pervasive system of micro *Shuras* linking with and forming into higher echelons of *Shuras*, all the way to the grand *Shura* of the Islamic state. Subsequently there is a hierarchical downwards distribution of decisions to the grass roots. One central aspect of the grass roots is the microenterprise in all sectors of the economy, and the microenterprise is driven by the spirit of entrepreneurship. It is entrepreneurship and not technology and management that is now seen to control megaprojects. It is also seen to be the engine of economic growth and development.

Schumpeter's Innovative Entrepreneurship and Development

The entrepreneurial basis of growth and development has also been extensively treated in occidental economic literature from the very beginning of economic thought. In Chapter 1 we pointed out how Adam Smith considered that economic efficiency arises from the concept of natural liberty, taken to its limits in individualism and self-interested competition among very small enterprises. In the same Smithian legacy and Hegelian dialectics we find Schumpeter's innovation model of development for the enterprise (Schumpeter, 1934; Hegel, 1956).

In the main enterprises no longer turn out revolutionary technologies but incrementally change them to their own benefit. This incremental transformation of technology at the enterprise level is brought about by a learning-by-doing process and interactions with the surrounding institutional environment. The savings generated are quickly turned into new forms of know-how. Evolutionary processes of this form driving the enterprise forward conflict and emerge. Yet the evolutionary world of Schumpeter is not of the disequilibrium type constructed by Marx (Taylor, 1967). Rather, out of the conflict and evolution of capital formation through innovation and mobilisation of savings in small units, a steady rise of know-how is realised by the enterprise in an interactive environment. From such incremental and unifying changes emerge an ordered world. Here Schumpeter takes account of the continuous stock of factors associated with civilisational, sociological and cultural forces. Growth and development by means of capital formation and technological change are thus depicted by Schumpeter as a continuous cycle that continues throughout history.

In Schumpeter's business cycle explanation of both capital formation by innovation and historical change, capitalism, like socialism, is seen to be a transient phase. Here Schumpeter comes closer to Hegel than to Marx. Along with such historical replacement of the transient processes of the economy, society and politics, there is also the implication of a transient phase in the technologies, institutions, power and the acceptability of change. The business cycle implication of such temporary and fluid historical movements is that the human world, when it reaches the peak of its performance, overheats itself and generates contradictions that bring down the dominant order. Capital formation through the process of accumulation and transformation in the empowering units of technology must therefore bring with it acquisitive power. We find this to have happened with the powerful hegemony of communism, built around the theory of socialism. We also see such an empowerment in capitalism through its Eurocentric model of technology, markets, power and change (Mehmet, 1995).

Although Schumpeter does not make it clear, his business cycle theory as a historical explanation of the structure of socialism, capitalism and democracy, would imply that the end of the historical process is democracy. Yet if Michael Novak (1982) is right in saying that democracy and capitalism of the entrepreneurial type are complementary processes, then entrepreneurial capitalism must mark the end of the process of enhancing democracy. Thus Schumpeterian historico-economic cycles are at best cycles of decreasing circumference converging to a world of democracy and entrepreneurial capitalism. The vision of institutional and technological change that go along with entrepreneurial capitalism is a dilution of megalithic dominance. Minimal government and the globalisation of markets are thus seen to be the emerging order.

Such predictions have been in accord with the momentum of change that is presently evolving in the globalisation process. However, what is not clear and cannot be read from Schumpeter is whether his historico-economic cycles end at such a level of change. If not, what will be the next change beyond global capitalism? Answering these questions necessitates an examination of the structure of technological change, which in both Hegelian and Schumpeterian dynamics ends in convergence towards occidentalism. The result is thus an end to the explanation of structure and an end to devising anything different for the socioeconomic development process.

Islamic Contrast to Schumpeter's Entrepreneurial Developmentalism

The patterning of historical change into anything other than this Eurocentric convergence of history makes this to be oblivious of the

structure of Islamic world view. The socioeconomic and political consequences that are today being generated by the globalisation grip on the Muslim world and the alienation of Muslims in that change are being shown by the rise of political Islamic discontent with that capitalist and hegemonic grip. The legitimacy of the political rulers of the Muslim nations is being seriously challenged by the Islamic alternative. This alternative, which takes the form of microenterprises for developing empowerment at the grass-roots level, is the engine of the Islamic view of socioeconomic change at all levels of society (Salleh, 1994).

Grass-roots expressions are today emerging in two ways. First, the socially unjust Western stereotype of economic arrangements is increasingly alienating the poor from the mainstream of national socioeconomic change. The poor and the deprived, their entitlement failures and impoverishing growth, are all turning the tide of Western models of development against the grass roots of the Muslim world. The result is a conflict of cultures between the haves and the have-nots. Secondly, where some resource mobilisation and economic organisation are taking place, the grass roots remain outside the mainstream model. The Islamic orientations of grass-root-level enterprises are seen to be threatening the ruling political culture.

As long as the grass roots remain in this predicament, and as long as the Western approach to globalisation fails solve their problems of empowerment and social well-being, the rise of an Islamic assertion over post-modern world capitalism remains a distinct possibility. None of the Western theories have addressed this problem. Consequently the historic-economic theories of Marx, Schumpeter and Hegel, and today Hayek, Heilbroner and Wallerstein, have failed to predict anything other than capitalist evolution in a self-perpetuating post-capitalist order grounded in Eurocentric modernity. (Wallerstein, 1989; Ferry and Renaut, 1992; Gillespie, 1984) This is inadequate to explain both the bipolar dynamics within the Muslim world and the bipolarity between Islam and the West at the turn of the century.

OTHER THEORIES AND PRACTICES OF SOCIOECONOMIC DEVELOPMENT IN OCCIDENTALISM

Todaro's Views and Their Critique

In his coverage of the classical, neoclassical and Keynesian approaches to socioeconomic developmentalism Todaro (1977) presents many

arguments against these paradigms. Important in the study of Todaro is recognition the fact that demographic change, immigration and the labour market together provide a phenomenon that is explained by individual expectations for material gains in a persistently dual economy. The rural sector is seen as a dual economy in all its economic, social and political functions, and is thus separate from the urban sector. This creates an embedded impoverishment of the rural sector. Population increase in general is considered by Todaro as an impoverishing human proclivity in the developing countries. Thus, even when criticising the mainstream economic approaches to development, Todaro maintains the same perspectives of human behaviour held by the other paradigms. Thus the inductive accidental view of existing institutions, cultures, economic arrangements and technologies is accepted by Todaro, and he presents his critique of neoclassical economics within this prevalent framework. In this sense, even a radical pursuit of developmental alternatives cannot liberate Todaro from the quagmire of mainstream economic doctrines on development.

THE STAGES MODEL OF ECONOMIC GROWTH AND ITS CRITIQUE

The developmental process, according to Rostow (1967), goes through four stages. First, there is the primitive accumulation of capital. Second, in the investment stage 5–10 per cent of GDP is reinvested in order to generate economic growth. Third, the advanced stage of economic growth is marked by 10–20 per cent of GDP being reinvested to generate economic growth and technological advancement. The fourth and final stage is marked by high consumption.

The Rostowian stages theory of economic growth is exemplified by the Marshall Plan for economic reconstruction in both industrialised and developing countries. Yet after three decades of Rowstowian stages theory the developing countries have not rid themselves of the savings gap syndrome. On the other hand, in countries with excess demand for investment, foreign direct investment and the use of Western models of development have not led to self-reliant development. In today's climate of globalisation, if the stages model of economic growth is retained there is every possibility that the economic instruments in this development will be turned against the growth and development pursuits of the so-called modernising economies. This reversal can come from the demise of sustainable development (Cetron and Davies, 1991).

SAVING, INVESTMENT AND INTEREST

Within the trend toward modernisation, we will now examine the instrument used to mobilise savings – the rate of interest. Domestic savings are generated by the promise of competitively high relative rates of interest. Bond issues respond to these high rates. But with an increase in bondholding, shareholding declines. Hence common ownership of assets declines. The result is a transfer of private wealth into public hands, and the need to maintain the yields on bonds drives the public agencies to hold them in growth-led projects that are not always ecologically friendly and hence are not social projects.

Bondholding does not increase productive assets and entrepreneurship. Over and above the trade-off of bonds against shareholding in the midst of relatively high interest rates, such rates also cause investments to decline. The sensitivity of investments to interest rates is found to be extremely high today, as expectations and advance information flows on capital market movements have caused financial markets to become highly volatile. These conditions generate advance reactions among potential investors even before an actual increase in the interest rate has occurred.

Higher interest rates in developing economies also constrain their foreign trade activity. This happens not simply through the route of declining investments and production for realising trade-led growth; the increased cost of loanable capital formed by savings also fuels domestic inflation. This in turn drives away foreign direct investment from such economies. The only way to get out of the situation is to impoverise the labour market with lower wages or invite megaprojects and government involvement in capital-intensive ventures. All these adversely affect the income distributional capability of the developing economies.

Furthermore, with high rates of interest and low exchange rates, liquidation of domestic currencies to earn foreign interest rates, occurs. Such a situation occurred when, during the Bangladesh War of Liberation, India printed excess Bangladeshi Taka, which enabled India to use the cheap Bangladeshi currency to buy Bangladeshi goods. A similar situation occurred when the run-off of the Mexican peso was arrested by the US Government buying the low-valued currency and allowing convertibility of the peso by a multibillion backup by US dollars.

Finally, higher interest rates may form part of the interventionist policies of Central Banks to arrest depreciation of the the exchange rate. When this happens, exports are adversely affected.

The Uncertainties of Interest Rate and Exchange Rate Mechanisms

Industrialised nations that control the world interest rate and exchange rate mechanisms can use these monetary instruments to upset the external sector balance of developing countries. For example high US short-term interest rates followed by depreciation of the dollar caused a poor performance in the Kuala Lumpur Stock Exchange throughout much of 1995. The underlying dynamics of this are as follows.

The depreciation of the US dollar caused the yen to be overvalued and the Malaysian holdings of yen reserves to follow an increasing trend. This adversely affected trade performance and, through a worsening of the balance of payments situation, increased the external debt. On the other hand, following the rising trend in the US interest rate, a tightening of the rate of interest in Malaysia to attract domestic savings caused a slowdown in the growth of investment at home (Government of Malaysia, 1995).

Industrialised nations can also manipulate their interest rate and exchange rate mechanisms in various ways to create financial uncertainty in developing countries' markets. This is yet another way of maintaining the industrialised countries' hegemony over the capital markets of developing nations. For example a high US interest rate coupled with an appreciated US exchange rate through central bank monetary intervention causes a reverse flow of savings from developing countries. This causes a widening of the savings gap and adversely affects the growth potential of globally linked price-taking economies. It lower exchange rate keeps the prices of commodities low. This adversely affects the comparative advantage of the primary sector, with an increase in dependency for inputs for the manufacturing sector.

There are many other examples of how the industrialised nations can manoeuvre their interest rate and exchange rate policies to exert control over the financial markets and prices of goods of developing countries. In conclusion therefore, the Western paradigms of development presently being emulated by developing countries are fraught with the many uncertainties that the global economy brings with it.

THE ISLAMIC MODEL OF GRASS-ROOTS DEVELOPMENT AND SUSTAINABILITY

The world view of the *Shuratic* process will now be brought into the development debate to explain the theory and practice of Islamic

development. First, we will outline the general theory of the Islamic approach to socioeconomic development. Second, we will examine specific cases of functional relations in order to point out the policy implications of such a developmental approach.

As Salleh has pointed out in several of his papers and his doctoral thesis, Islamic socioeconomic development comprises two complementary processes that give the dynamics of change (Salleh, 1992). First, socioeconomic development grows from realisation of the inner self. That is, polity-market (ecology) preferences of the type shown in Figure 3.1 aim at changing consumer preferences in ways that address the *Shari'ah* basis of behavioural change. Hence transformation starts from educating the individual to adopt appropriate modes of consumption. The *Qur'an* is full of instructions on socially responsible consumption habits, and the extension of such consumption patterns is established by the *Qur'an* when it says that all the good things of life are made for the benefit of believers in God's Unity. (Ali, 1946). It remains for the *Shuratic* process of discussions to search and discover such diversities from the fundamental premise of permissible consumption patterns.

According to *Qur'anic Ahkam* there are two categories of consumer goods – *Halal* (permitted) and *Haram* (forbidden). In between these extremes are undetermined categories of goods and services called *Mubah*. But *Mubah* is a temporary phenomenon, and items in this category are soon defined as either *Halal* or *Haram* as the process of knowledge flows removes doubt and establishes certainty (Qaradawi, undated).

The highest level of felicity attained from the consumption of well-being denotes the stage of self-actualisation in the midst of God-consciousness (*Taqwa*). Only with this experience can the dynamics of the *Shuratic* process be initiated. Subsequently the dynamics of grass-roots development is launched. Salleh calls this foundational process *Hablum-Minallah* – the individual's relationship with God. However this relationship is not premised on individualism or an individualistic interpretation of *Shari'ah*. All interpretations of issues and problems must arise from discourse and acceptance of consensual views. For this to occur, the *Shuras* must be pervasive at every level of society. A *Shura* may simply be a process of informal consultation to determine an *Ahkam*, no matter how mundane. *Hablum-Minallah* also means the stage of developing God-consciousness in order to be able to work effectively as a *Sharee* and to be capable of receiving and reacting to the *Ahkam* of *Shuras* when it impinges upon the ecological order through the various guidance, policies and programmes generated in this process. The strength of *Hablum-Minallah* is that it provides the possibility of consensus through interactions leading to integration

(*Ijma*). Both are taken within the *Shuras* and in concert with the human order. *Hablum-Minallah* thus provides the capacity to comprehend knowledge. The organised manifestation of such a capacity prepares the groundwork for an 'ethicised' human order to be formed.

The preparatory groundwork of *Hablum-Minallah* for gaining the capacity for knowledge, is simultaneously enacted into action by its translation into application. Such practical steps takes the form of *Ahkam* formation. *Ahkam* is discursively post-evaluated to advance into higher stages of knowledge evolution, as the human beings (both *Sharees* and society) continue to affirm and confirm the *Shuratic* process on the issues at hand. Policies, programs and functions of life incorporate such human actions, which Salleh calls *Hablum-Minannas*.

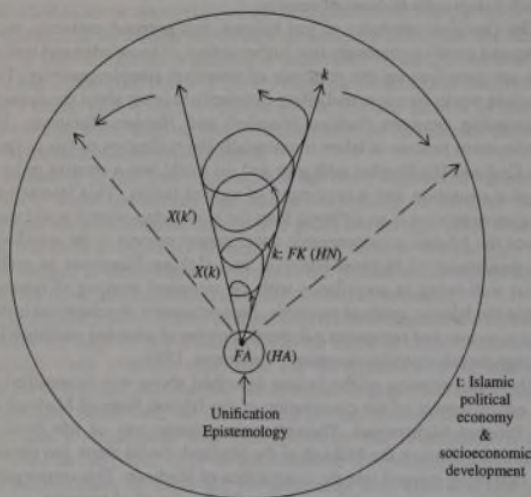
The *Qur'anic* attributes of just balance, just purpose, certainty, well-being and creative continuity into higher realms of knowledge and realisation are premised on the principle of universal complementarity. This principle works by cause and effect circularity to bring about the dynamic relationship between *Hablum-Minallah* and *Hablum-Minannas*. The development process in Islam is essentially the realisation of this to interlink God and His Prophet with man and the world into a creative order of circular causation and a continuity of unified reality. This interactive-integrative process is no different from the knowledge-centred world view. Hence the Islamic socioeconomic development process is the simultaneous enactment of *Hablum-Minallah* and *Hablum-Minannas* to realise social well-being in accordance with the sustained working of relations within the Islamic political economy. Socioeconomic development is thus inter systemic and represents a dynamic process of attaining sustainability through moral-material causation (Viederman, 1993).

The harmonisation of the factors described above was exemplified by the establishment of the constitution of the Islamic State of Madinah by the Prophet Muhammad. Thereafter the Islamic way of life came to fruition not through the Makkah or the Madinah model alone, but through the two being merged into the constitution of Madinah. This convergence marked the completion of the message of Islam for all of posterity.

The grass-roots aspects of the Islamic development process in this sense can be inferred, first, from the experience that the knowledge-centred dynamics of socioeconomic development is premised on unification epistemology, from which the understanding of the development world view emanates. Second, it takes the form of global participation among networks of *Shuras* spanning different microsectors of the Islamic political economy at large. Thereby, dynamic basic-needs regimes, microenterprises, appropriate technology and joint ventures among

enterprises of all sizes become the functional groundwork of socio-economic development.

The general theory of Islamic socioeconomic development in terms of the relationship between *Hablum-Minallah* and *Hablum-Minannas* is further explained by means of the functional education programme of an Islamic society shown in Figure 5.3. (Choudhury, 1983b; Husaini, 1971). Note here that although obligatory Islamic education (*Fard Ayn*) provides the epistemological foundation for the grass roots, it is also functionally and simultaneously interrelated with requisite education in light of *Shari'ah* called *Fard Kifaya*. By the same principle of global complemen-



- FA: *Fard Ayn*; FK: *Fard Kifaya*;
 HA: *Hablum Min Allah*; HN: *Hablum Min Annas*;
 k: knowledge flows; $k^1 > k$;
 $X(k)$: material order influenced by k ;
 $X(k^1)$: material order influenced by $k^1 > k$;
 hence, $X(k^1) > X(k)$, > in the evolutionary sense.

Figure 5.3 The general theory of Islamic socioeconomic development in the knowledge-centred world view

tarity, just as *Hablum-Minallah* and *Hablum-Minannas* are enacted simultaneously, so too are *Fard Ayn* and *Fard Kifaya*. Such a deduction is different from some traditional views on Islamic educational planning that have treated the two parts of education independently from each other. The Western model of education intensified such views in Muslim societies during the colonial period. It is still found to be a continuing show of the Eurocentricity and individualism found in the Western philosophy of education (Naisbitt and Aburdene, 1990).

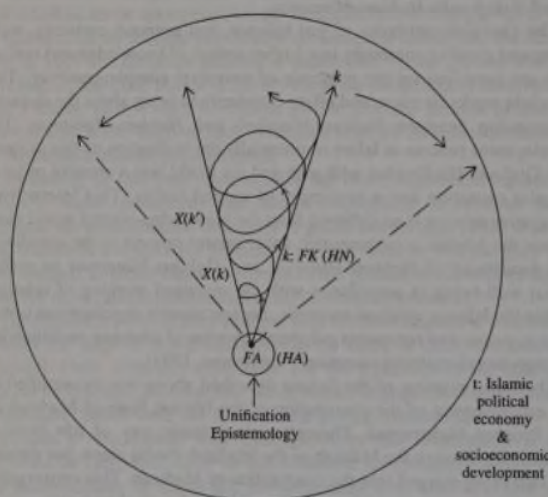
Complementarity between all the subsystems (HA, HM, FA, FK) as part of the global complementarity that exists in Islamic political economy (Z) brings the knowledge-induced cognitive forms ($X [K]$, $K = FK$ being knowledge flows) into materiality. This is followed by their evolution into higher levels of knowledge flows (K'). FA is shown to emanate from the unification (*Tawhidi*) epistemology. The moral-material circular causation and continuity world view of unified reality thus proceeds onwards. This is shown by the tuple (K' , $X (K')$). The sideways expansion of the arrows of evolution shows the interaction-integration that takes place between the domain of HA and the ever-expanding domains of HM within the Islamic world view, specified here by Z, the Islamic political economy.

SUSTAINABILITY WITHIN THE ISLAMIC SOCIOECONOMIC DEVELOPMENT FRAMEWORK

The same process of knowledge evolution and moral-material complementarity explains the sustainability of the Islamic socioeconomic development process. In the Islamic concept of sustainability, the physical environment now transforms into a knowledge-induced cognitive form, and establishes a medium for realising the attributes of *Shari'ah*. Social well-being becomes a measureable criterion of such an induction. Hence such a criterion is not mechanistically quantified, as is the case with the optimisation of the social welfare function. Conversely variables such as self-reliance, caring society and, above all, the evaluation of new levels of *Taqwa* formation are quantified by ordinal parameters set by the *Shuras* out of the post-evaluation shown in Figure 3.1. Hence the institutionally oriented simulational method and technical methods are involved in the estimating the level of social well-being attained. Various other methods for explaining the attained stage of knowledge in human decision making can be incorporated. For examples the technical side of integrated decision-making models can be used within the framework of Brownian motion, which are random processes in theoretical physics, with expected ordered

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consensual values being extracted from these to explain arbitrage in the stock market. The expected ordered consensual values obtained from consensual convergence via the methods of fuzzy logic, chaos theory and perturbation methods can be so derived (Yong, 1994).

Such a measure of social well-being is found to be different both from the neoclassical concept of social welfare function and that of the human development index or the human quality of work index (UNDP). All of the latter concepts are based on measured quantities that are given parameters in the measurement of human conditions. No particular presence of discursive human behaviour is to be found in these. Hence sustainability as a concept that is essentially dynamic and of a human dimension, and not simply of the nature of physical ecology, remains dysfunctional in this physically limited ecology.

The relationship of physical environment and sustainable development to the greater concept of sustainability can be read out from the schema treating physical entities as sheer cognitive forms. Consider then the consequences of treating the physical environment and sustainable development as goods or services. These goals are measured in terms of sustaining the reproductive capacity of the physical environment through conservation, the generation of human activity around such a consciousness, a sustained high rate of growth and economic stability, which in turn are brought about by means of population growth, the promotion of biodiversity, consumption moderation and appropriate production methods and technology.

If the environment is considered as a good or a service, then mainstream market exchange implications mean that it must have an observable price and quantity. For an environmental good, its price (p) is equated with the marginal cost of production (MCP) plus the marginal cost of environmental depletion (MCE): $p = MCP + MCE$. For a value of p set by any of the many chosen optimal conditions of production in imperfect competition (due to the existence of diseconomies), a trade-off must exist between MCP and MCE . This implies that there is an intrinsic trade-off between private sector and social production. Markets marginalise the environmental consciousness. Indeed the industrialised nations today admit that the emission-control targets they agreed to at the Rio Earth Summit have not been attained.

Next consider that an appropriate technological or institutional factor, MCT , is included in the above equation. Now in the equation $p = MCP + MCE + MCT$ it may appear that any trade-off between MCP and MCE can be corrected by the higher value of MCT (Arshad, 1994). The resultant cost in the system then increases as institutions and technologies become

expensive inputs of environmental control in the face of irresponsible market forces. The marginalist substitution that now occurs between markets and environmental considerations is transferred to enterprises, for example by means of higher taxes. Most often, for effective environmental control, such taxes are levied on units of output. Hence increased *ad valorem* taxes increase *MCP*. Consequently production inefficiency in the neoclassical sense is built in. In recent years the institutional and technological constraints on producers in industrialised countries have caused them to move their operations to developing countries with relaxed environmental laws.

An increased price level also means lower economic welfare for consumers. An investigation by the US Environmental Protection Agency found that products marked as environmentally friendly were selling at high prices, so selling goods as environmentally friendly is a highly profitable business for many large producers of consumer goods (Hemphill, 1991).

The schema between markets and institutions *vis-à-vis* the problem of sustainable development and the environmental question can be illustrated as follows:

$$\begin{array}{ccc} & & \% f_1 \text{ Markets (MK)} \\ SD \rightarrow \text{Environment} \rightarrow & \uparrow f_3 & \\ ST \quad (ENV) & \& f_2 \text{ Institutions (INST)} \end{array}$$

By compounding (\circ) of functional relations f as shown,

$$f_3(M, INST) = f_1(M, ENV) \circ f_2(INST, ENV).$$

Here the relationship between institution and markets follows the viewpoint of the environmentalist whose perception of a good or service is influenced by either sustainable development (SD) or the concept of sustainability (ST). If sustainable development is the epistemological origin of the environment-focused treatment in this context, then there is always a trade-off between institutions and markets on the question of environmental protection.

If sustainability is taken as the epistemological premise, then the attributes of *Shari'ah*, as explained earlier, define the complementarity between markets and institutions in terms of a unique set of consensual preferences. This is also the process of transforming an economy into an 'ethicised' market order (Choudhury, 1992). The environment is now treated as a cognitive instrument (material medium) for realising sustainability goals (ENV [ST]). Now no trade-off can exist, since the sustainability attributes

of *Shari'ah* as knowledge formation attained through the *Shuratic* process underlie both markets and institutions (*Shuras*). This brings about interaction-integration between markets and institutions. The above compound relation is now written as

$$f_3(M, INST; ENV[ST]) = f_1(M, ENV[ST]) \circ f_2(INST, ENV[ST])$$

QUANTITATIVE MEASURES OF EFFICIENCY AND EQUITY PARAMETERS OF SOCIOECONOMIC DEVELOPMENT

We shall now address the question of self-interest in forming a complementarity of processes between markets and the institutional order. A most important problem encountered in regard to development is that of complementarity versus trade-off between economic efficiency and distributive equity. Figure 3.3 is drawn upon here to investigate this issue.

Let GDP/POP denote the value of GDP per capita. We will treat this as the efficiency variable. POP denotes population size. We will treat this as the ethical variable. According to mainstream approaches to development and the whole gamut of population debate under the United Nations Agenda, POP is seen to be in trade-off with GDP/POP. The issue of self-interest underlying such a trade-off is that the cost and consumption levels of the economy remain limited by the extent that individuals would like to demand for their economic welfare. In this, lower population when substituted with capital-intensive technology, would produce the required needs and wants desired for maximising individual economic welfare. On the other hand control of social caste will rationalise sustaining of large population size. Markets function on the basis of cost minimisation and the lower unit cost of capital-intensive technology than the more inflationary wage cost of labour-intensive technology.

Transforming such a marginalist trade-off model into a complementary one necessitates a reconsideration of the self-interest factor when technological change can be attained with low cost continuously, and when both consumption and production benefits can be derived from market exchange in the midst of stable population growth. We will change the regime of development from one of production of wants to one of production of dynamic baskets of basic needs, so that such bundles can undergo continuous evolution. In this way the cost of production is attuned to basic needs production, and the technology is appropriate to such a production regime.

THE SUPPLY OF INPUTS IN THE BASIC NEEDS REGIME OF DEVELOPMENT

Next consider the question of inputs and their efficiencies in production. The production of basic needs is labour intensive in accordance with given evolutionary stages of dynamic basic needs regimes. Labour intensity and the possibility of producing basic needs at the level of microenterprises enable the grass roots to participate in the production process. Participation in turn generates an interactive process of cooperating with each other to determine the potential for joint production, cofinancing, integrated marketing and skill-technology complementarity between firms. All of these processes result in cost control, product diversification and risk diversification, making it possible for creative continuity to be sustained in the dynamic basic-needs regimes of development.

The profits of firms are determined by net revenue flows. When wage and resource costs are controlled and technological advance according basic-needs regimes becomes viable, profitability increases. Profitability in the basic needs regime of development is also enhanced by the popularity of such products when population increases, labour market expands, capital widening takes place, markets expand. Investments increase and the expansion of markets both insulates domestic and regional markets from external uncertainties and allows the markets to exceed their domestic bounds if the popularity of the process transcends local boundaries. Such basic needs approaches are debt and deficit stabilisation, if waste is also to be controlled. This keeps the interest rate low and investments high. Thus the prospects of steady increases and stable profit rates is sustained.

In a system where interactions proceed under the guidance of pervasive *Shuras*, to ensure that consumer preferences are in accord with *Shari'ah* perspectives the consumption and production methods must comply with each other. Such a market transformation helps to establish market clearance, so that producers do not have to stock up inventories or have consumers wait in line. There exists no particular reason for producers to move into the production of wants versus needs, if the latter is the one demanded by the consumers. Conversely, if the market forces are governed by the supply side, with producers advertising their diversified products for consumers to buy, *Shuratic* guidance and the logic of high start-up costs will minimise the evolution of the economy in the direction of wants versus needs.

THE COST OF EMULATING GLOBAL PATTERNS OF CONSUMPTION

Why then do global economies move into the production of luxuries and wants? To answer this question we note that consumer sovereignty together with the demonstration effect of conspicuous consumption – the catching up effect and emulation – cause markets to become integrated to service wants and luxuries. The individualistic self-interest in the market order intensifies the process, and knowledge as an interactive relationship fades away. The globalisation of present times is thus seen as a relationship between markets made up of consumers and producers on the one hand, and institutions and technologies reinforcing the market process on the other hand. Yet the goals of greater conservation and responsible consumption and production are turning the global markets to words sustainable development. This shows the possibility of using the market mechanism as a means of disseminating knowledge and transforming consumption and production behaviour. The *Shuratic* process working in the socioeconomic order is precisely such a knowledge-forming institution.

Now a steady population increase enables not only large markets for basic needs, but also intensifies the dynamics at the grass-roots level. Microenterprises and global participation across the political economy become the much needed instruments of social change. The evolution of large markets through a steady population increase in the midst of dynamic basic needs regimes of development allows regional economic integration, particularly within the Muslim world. What makes this approach so viable for the Muslim countries is the diversity of resources and the variety of technological know-how they hold. Muslim economic integration is all the more pressing because of the large debts and deficits Muslim countries have accumulated as a result of non-Islamic approaches to development, and because external sector policies have kept these countries in the grips of external sector uncertainties (Choudhury, 1989b).

In reality, where the global order is most expected to remain segmented between wants-economies and needs-economies, the emulation for wants would continue if institutions work with privileged megacorporations to replace micro-level interests by Veblen-type effects of consumption and production (Veblen, 1912). Yet in the event of steady population size the prowess of the *Shuratic* process remains supreme and attractive. The level of knowledge formation in the development process is now brought to the level of political activism as an important arm for self-assertion at the grassroots when institutions do not pronounce their interests during their lure for skewed forms of wealth formation and power through markets.

Such is indeed the reality of the post-Cold War rise of Islamic activism, together with its intellectual rationalisation. This is a politico-economic reality today, and it vehemently opposes the Eurocentric hegemony of the occidental world and its morally inapt globalisation.

Now if we take up the GDP/POP and POP relationship in the *Shuratic* world view, the self-interest of the grass roots in the dynamic basic needs economy along with their hierarchical relationships taken up institutionally and through microenterprises, establish the legitimacy for this menu of development. The security and sustainability of profits arising from this globally participatory order and its technological ramifications mean that GDP and POP increase together. Hence there is complementarity between population and GDP.

A steady population increase does not mean that at certain times the dynamic basic-needs regimes will not require the matter to be subject to the *Shuratic* process in order to determine the continuity of the global complementarity required. But all of these changes take place in accord with the derivation of the attributes of *Shari'ah* in the epistemological sense and its externalisation in the flows of knowledge to attain the knowledge-centred development change that is authentically Islamic.

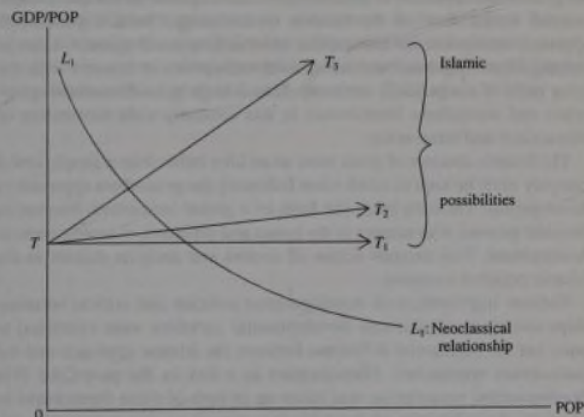


Figure 5.4 Population-per capita GDP relationship in neoclassical and Islamic perspectives

Figure 5.4 shows the two processes. L_1L_1 denotes the marginalist substitution relationship between GDP/POP and POP. TT_1 , TT_2 and TT_3 denote three possibilities for the Islamic case. Of these, TT_3 points to the possibility of a decline in per capita GDP values. When this happens, knowledge-induced discursions in the socioeconomic order correct the deficiency by reexamining the interrelationships. One corrective act would be to slow down the population increase by means of moral persuasion and guidance. Another would be to expand joint ventures and cofinancing along *Shari'ah* lines. Yet another would be to extend tax relief to businesses and consumers at all levels.

CONCLUSION

In this chapter we have brought in the *Shuratic* process to deal with yet another problem of political economy, that of socioeconomic development. We have undertaken a wide comparative study of the developmental literature to bring out the theoretical and policy perspectives of the Islamic approach to socioeconomic development. The hierarchical and interactive-integrative framework of the *Shuratic* process inexorably establishes the grass-roots approach to socioeconomic development as the knowledge-centred world view of the Islamic methodology. Such a grass-roots approach means that the hierarchical order is seen much more in terms of sharing knowledge and activating microenterprises in concert with the other parts of the political economy. Hence large to medium-sized enterprises and institutions interconnect in this economy-wide momentum of interactions and integration.

The Islamic concept of grass roots as an *idea* rather than a simple social category must be kept in mind when following the grass-roots approach to development. The idea takes the form of a global interactive-integrative *Shuratic* process with respect to the issues and problems of socioeconomic development. This extends across all sectors and decision makers in the Islamic political economy.

Various implications of developmental policies and critical relationships among socioeconomic developmental variables were examined to point out the substantial difference between the Islamic approach and the mainstream approaches. Globalisation as a link in the post-Cold War developmental prescription was taken up in both of these frameworks to illustrate the relevance of the Islamic approach to development in the global context.

It should also be pointed out that, in the total Islamic socioeconomic developmental process, the interactive-integrative essence of the *Shuratic* process means that the theoretical, practical and institutional contexts should coexist with political activism. Without the latter the *Shuratic* process would remain distanced from the grass roots.

The passions of Eurocentric hegemony and oppressive bipolarity within the Muslim world, would always attempt to suppress the rise of the authentically Islamic idea of development. In the present state of hostile relations between the West and Islam as the world advances towards globalisation, the only way Muslim countries can regain and retain control of their own development is to carry out a politico-economic reconstruction of the Muslim world using the methodology, instruments and institutions prescribed by Islam. This will also mean greater political rights and economic self-reliance at the grass-roots level. Contrarily, the elitist establishment is not expected to change itself from its own vested interests as served within its Western alliance.

The West, on the other hand, will find it impossible to suppress a popular grass-roots realisation of authentically Islamic origins in the Muslim world, for such a global force will be an expression of the greater size of the Muslims population. Nonetheless, as long as the present state of internal bipolarity of elitist and suppressive governments continues in the Muslim world, such governments will remain at the mercy of Western economic and political policies and whims. These are undercurrents of a pervasive movement in modern historical evolution, to which Huntington has given the meaning of clash of civilisations (Huntington, 1993).

6 Human Resource Development in the Islamic Perspective

In this chapter the concept of human resources as part of the broader concept of socioeconomic resources in the Islamic world view will be made to relate with and evolve from the fundamental premise of the *Shuratic* process. We are then led to consider human resources not just as a form of human capital, such as education, training, personnel development and skills. Rather the services needed to sustain humankind as social beings in society, enabling them to enjoy their existence in the social midst, are part of this broader domain of human resources. Such a treatment is not exceptional in the economic literature. Others have considered health, housing, recreation, social security, research and development as part of the human resource package (Levitan, Mangum and Marshall, 1976). An even broader concept of human resources that is treated at some length in the literature on human ecology and sustainable development, is that of the great commons (Inglett, 1990). Therefore, when dealing with the concept of human resources in this wide sense within the Islamic world view, we must also consider the corresponding meaning of ecological commons and other forms of human resources. Finally, the role of human resources in the Islamic perspective, can be introduced into the topic of socioeconomic development. It is the objective of the present chapter to develop some new approaches to the concept of human resources.

THE CONCEPT OF SOCIOECONOMIC RESOURCES IN THE ISLAMIC WORLD VIEW

Is a resource a good or a service in the economic sense? If a resource is a good, then it must be treated either as a basic need or a want (Levine, 1988). Then, to the extent that a basic need is a necessity for sustenance, survival and growth, a resource must be treated as an investment good while being a consumer good at the same time. In other words, a resource

as a basic need turns out to be like the Keynesian consumption-investment hybrid. On the other hand, if a resource is treated as a want, then it is a scarce good and a costly one to produce, acquire and sustain. Between these classes of goods, resources can also be a mix of basic needs and wants, as in the case of education, which as a resource can be divided between expenditure on professional training at high cost or low-cost public education of the general type.

Here we have Becker's views on general (need) as opposed to specific training (want) (Becker, 1964). General training has a larger domain of users and use. Specific training has a limited demand as it focuses on the training of inputs that are useable in specific occupations and by particular employers. In this way the structure of a resource treated as a basic need or a want has an impact on our understanding of the labour market and income distribution.

In the neoclassical marginalist substitution framework, which clearly emerges from the treatment of a resource as a good, assumptions are made about economic rationality, individualism, self-interest, optimisation and long-run equilibrium in resource allocation, pricing and efficiency. This was discussed at length in the earlier chapters and will not be repeated here. However it is important to note the inherently unsustainable and depletable nature of a resource in such a case. This is the element of the cost constraint arising from excess demand that remains intrinsic to the marginalist substitution idea. The possibility of complementarity between human resources as factors of production either by means of the market mechanism or through their institutional role remains exogenous to the concept of a resource when this concept is understood as a good.

Consequently the question remains: how can a resource of this nature continue to sustain the demands of all in society in the directions of gaining social well-being? Competition and self-interest must provide the basis of marginalist substitution of one good by another, irrespective of whether such alternatives are needs or wants. The underlying concept of scarcity in resource production and allocation due to hedonic individualism and waste, be this for needs or wants, reduces the sustainability of the resource base.

THE ENVIRONMENT AND SUSTAINABILITY: THE RESOURCE QUESTION

When taken up in terms of sustainable development, the above concept of resource is spelled out in terms of the environment being treated either as

a good or a service. This topic was discussed in some detail in Chapter 5. Here we need only point out that the environment as an economic good competing against employment cannot be considered as a resource-sustaining good as it results in unemployment. Thus a good intention is found to be instrumental in bringing about a bad result, namely unsustainable employment.

Another example is the concept of sustainable development taken up in the neoclassical model of population control in relation to the question of consumption and waste. For instance, with regard to aiming at sustainable development by targeting population control, the West is found to pass on the enormous cost of restructuring global consumption to the developing countries. The fact of the matter is however that consumption per capita is much higher in the industrialised nations than in the developing ones (Jackson, 1993). What is lacking in the latter is an adequate nutritional and calory intake per capita. This is related to improving biodiversity in the developing countries, rather than to consumption costs.

Sustaining biodiversity also means increased health and welfare in the developing countries by promoting access to alternative medicines. Sustainable development under the neoclassical agenda has failed to look into these human alternatives while pursuing the idea of resource constraint using environment-economy models with aggregate production functions and pricing constraints (Government of Canada, 1992).

But there is yet another connotation of resources as economic goods. The concept of a resource as a reproducible input becomes replaced by a substituted one when produced and final demand for such goods depends upon resources that get replaced in the midst of the marginal rate of commodity substitution. Consequently factor inputs as resources are replaced in the midst of the concept of marginal rate of technical substitution. This is a neoclassical general equilibrium result. Its consequences become more acute in the framework of imperfect competition in neoclassicism, wherein oligopolistic producers and colluders control resources. Reproduction of factor inputs as resources by means of techniques such as using capital-labour cooperation through mutual participation in production, is not to be found in mainstream economic thinking. An example of such a complementarity between labour and capital through appropriate technology is the recycling of agricultural by-products in fertilizer production using labour-intensive production methods, and subsequently using output as a low-cost input for agricultural production.

LABOUR MARKET IMPLICATIONS OF THE HUMAN RESOURCE CONCEPT

Another critical purpose appears to be defeated in the classical and neo-classical notions of specialisation and division of labour. This is the possibility of widening occupational choices by labour market adaptability of the various categories of labour. In such a labour market situation, complementary augmentation among various skills could be made possible. Instead what we find are segmented and dual labour situations in the name of specialisation and division of labour in order to improve labour market efficiency (Handa, 1985).

The absence of skill augmentation in segmented labour markets causes wage rates and hence prices to remain high. Such labour markets contradict the economic reasoning behind specialisation and division of labour to promote labour market efficiency. These cases show that because resources are competed for, they remain non-reproducible in mainstream economic theory.

All the above approaches to the understanding of resources as inputs of tangibles (goods) in production for purposes of optimising economic efficiency, characterise economic resources as non-reproducible and costly. Therefore the incremental use of resources for purposes of production and consumption must mean depletion by substitution. This in turn result in unstable economic efficiency, increased prices and costs (Tinbergen and Heuting, 1991).

RESOURCES AS SERVICES

A service provides the utility of a good rather than the good itself. A house as a physical good provides the service of habitation that people enjoy; education is a service because of the welfare it provides to individuals and society. The fine difference between the nature of a good and a service is the perspective they assume in analysis. A house as a statistic of the number of new dwellings constructed (existing) in the economy would be seen as a physical good. On the other hand, a house as a rented property can be looked upon by the owner as an investment good that produces a flow of income. A house occupied by a person serves as a consumer good that provides a flow of services.

Any good can be turned into a service by adopting a different analytical orientation. For instance a house as a dwelling statistic could be

turned into a statistic to analyse the production of social well-being in the construction sector. In this case the social well-being function would include complementarity between the number of houses and the income and services generated from these. This is due to the fact that in the measurement of social well-being as a measure of enjoyment, all units are reduced to services. Hence this complementarity between service and enjoyment in the context of social well-being transforms all goods into services, the present example being of the construction sector (Turnbull, 1989).

A service, however, is not always a knowledge flow. For instance, although a luxury good may generate enjoyment for its owner, it cannot be associated with the concept of service in the sense of sustainability. Pollution, although it generates output and hence utility for the capitalist, cannot be associated with this concept of service, and so on. The reason behind this differentiation is that social well-being as a service enjoyed in society at large does not increase. In this regard, Rawls' 'difference principle' argues that social welfare maximisation must mean improvement of the welfare of the most underprivileged groups (Rawls, 1971). Social trust and avoidance of envy in ownership are considered to lubricate X-efficiencies (Leibenstein, 1976). Besides, through such gains in X-efficiencies, allocative efficiencies must improve as well by the principle of global complementarity in resources.

In the sense of an economic service, a resource bundle is a service itself, as it must be considered both an input and an output in the production of other services. Besides, when the principle of global complementarity between goods and services is used, all such services become flows of knowledge and 'bads' become negative entries in national income accounting. Such an idea of discounting 'bads' from net national income can be found in Nordhaus' and Tobin's concept of the measurement of economic welfare (Nordhaus and Tobin, 1972).

This treatment of an economic service versus an economic good leads us to view their implications in neoclassical economic theory as follows (Blaug, 1970). If a service is not complemented with a good through a regenerative process, then it has to be accounted for within consumption in the national output. An economic good is to be accounted for with investment. Now consumption and investment are substitutes for each other, particularly in neoclassical economics. In a Keynesian approach to the economics of education there is scope to treat public education as a hybrid between consumption and investment. For instance elementary and secondary education can be seen as consumption; post-secondary education can be viewed as investment.

The above concepts of resources in the treatment of 'goods' versus 'bads' and 'services' versus 'goods', lead us to formalise these concepts in relation to independence among variables/agents, and in relation to 'global' complementarity among these. We shall attend to these issues now.

A FORMALISATION OF THE RESOURCE CONCEPTS IN CONTRASTING FRAMES

In Mainstream Economic Theory

Formalistically, a resource vector can be defined as follows. Let, X_i , $i = 1, 2, \dots, n$ denote goods; R denote a vector-valued function of the goods; R being that vector. dX_i/dX_j denotes the marginal rates of substitution of X_j for X_i , $i, j = 1, 2, \dots, n$; $i \neq j$. $R = R(X_1, X_2, \dots, X_n)$, $dR/dX_j > 0$, $i, j = 1, 2, \dots, n$, $i \neq j$. Thus $dR/dX_j = \sum_{i=1}^n (dR/dX_i) (dX_i/dX_j)$.

Since R decreases by the use of any of the goods, X_i , $s = 1, 2, \dots, n$, therefore $dR/dX_s < 0$, $s = 1, 2, \dots, n$; and $(dR/dX_s) (dX_s/dX_j) < 0$, $s = 1, 2, \dots, n$.

Hence $dR/dX_j < 0$. That is, the resource vector decreases by the scale of production and consumption. Therefore the price of each of the goods X_j , $j = 1, 2, \dots, n$ must increase.

In the Complementary Resource Framework

On the other hand complementarity among factors in the sense of skill augmentation must mean that $X_i = X_i(k)$, $i = 1, 2, \dots, n$. Now the resource vector is defined by

$$R = R(X_1, X_2, \dots, X_n)(k), \text{ where } k = \bigcap_{i=1}^n k_i.$$

Now

$$\begin{aligned} dR/dK &= \sum_{i=1}^n (\partial R / \partial X_i) dX_i = \sum_{i=1}^n (\partial R / \partial X_i) (\partial X_i / \partial k) \\ &= \sum_s (\partial R / \partial X_s) (\partial X_s / \partial k). \end{aligned}$$

Since $X_i(k)$ increases as k increases, $s, j = 1, 2, \dots, n$, therefore, R must increase with every increase of $X_s(k)$. Consequently $dR/dk > 0$. That is, an increase in the knowledge flows of the complementary resource system of goods creates an increasing reproduction of the resource vector. Hence it is the knowledge flows, k , that critically cause the conservation and reproducibility of resources to be sustained in production and consumption.

Now if there is more of each good and factor input as available resources, their prices must also remain low (Choudhury, 1989).

COMMON GOODS AS GLOBAL RESOURCES

The reduction of all goods into services in the sense of social well-being helps us to treat the resource concept as a bundle of common goods. Common goods are internationally provided social goods. In the social and economic literature such goods are seen as globalised ones that are subject to international institutional regulations for reasons of sustainability and intergenerational welfare (UNCED, 1992). But according to the principle of universal complementarity, common goods are viewed as God-given resources to be utilised and enjoyed in perpetuity for mankind's sustenance and obedience of the divine order. This means they should be utilised according to and for the objective of ameliorating the *Shari'ah*. Earlier we spelled out the attributes of *Shari'ah* as identical with those of the *Qur'an* as these are premised on the primordality of the Divine Laws. These attributes are just balance, just purpose, certainty, well-being and the creative continuity of knowledge flows premised on divine unity. The description of the circular causation and continuity world view we derive from the totality of these attributes reflects the unification epistemology that emanates from the essence of the oneness of God (*Tawhid*).

A CRITIQUE OF THE HUMAN DEVELOPMENT INDEX

There is therefore a substantial difference between the comprehension of the idea of common goods in the above two cases. A humanistic epistemology of common goods leads to a human-based origin of social well-being. (Spooner, 1982) This approach accepts the utilitarian concept of social welfare found in the economic literature (Quinton, 1989). Goals such as conservation of the environment as a good or a service, income and outputs, economic welfare, entitlement, social security and the like form the basis of a concept of social welfare derived from the humanistically premised idea of common goods. An example of this is the human development index, the measure of economic welfare and the net national product excluding the valuation of pollution in output. All such indexes encounter the problem of pitting services against goods.

Resources are thus treated as being limited not in terms of the capacity for moral responsibility, but as being constrained to produce the bundle of

goods or services of the types that in the first place bring about a diminution of available resources. The human development index (HDI) for example, being measured statistics rather than an institutionally evolved indicator of the process of human change in the national and world order, cannot incorporate ethical parameters of development (Goulet, 1994).

It is therefore futile to read anything meaningful into the low HDI value for Palestine and Bangladesh, as the alleged political oppression in the former and the political instability and institutional dishonesty in the latter are not captured in the index as explanatory factors. We do realise, however, that the HDI would be even lower in such a case. The explanatory feature so required, cannot be gained by the sheer measured value of HDI. Alternative indexes of social well-being need the human pressure in the form of processes required for explaining the underlying dynamics of social malaise and social reconstructive possibilities (Choudhury, 1996).

THE SOCIAL WELL-BEING INDEX

A good means of extending the HDI concept would be to construct a social well-being index (SWI). Its technical features would be similar to the Brownian motion representation now being adopted by stock-market analysts. The latter incorporates the psychological impact of stockholders and the global economy on stock-market behaviour. Stock prices are then explained and simulated by a combination of human factors and economic forces. The stability of such an index is not the point, rather it is the explanatory power of such an index and the underlying method that is important. The predictability of stock-market movements is applicable to the extent that the human dispositions comply with stability and orderliness and these reflect on decision-making that affect stock market variables (Kosko, 1993).

In the knowledge-centred world view, where resources are governed by the principle of universal complementarity, common goods become a moral-material stock of resources that are continuously created and enhanced by creative processes of knowledge production. Goods and services are seen only as intermediaries in the creation of new springs of knowledge flowing from the previous inputs of knowledge. In other words this means the sustenance and continuity of common goods based on the circular causation and continuity model of unified reality. This human process, which arises from the unification epistemology of the divine laws, was discussed in detail in earlier chapters.

The social well-being precept of the knowledge-centred world view is morally generated by the medium of goods and services, both of which are primordially generated and recreated by knowledge flows. In other words, in a basic-needs developmental regime it is knowledge flows derived from the springs of *Shari'ah* that bring about the interactive-integrative transformation of the market process and define the consumption, production and distribution – and hence the appropriateness of goods, services, income distribution, wealth and so on. The process element of social well-being, then, is provided by the *Shuratic* process of simulating and regenerating knowledge flows, together with their inductions in the interactive, evolutionary process from the side of socioeconomic variables. Among such morally induced material conditions are the attainment of social justice, entitlement, security, consumption, production, distribution, avoidance of excesses and waste, and the realisation of intertemporal sustainability.

The concept of resources as common goods in the modernist social and economic literature is that of a static stock of non-replenishable inputs for consumption and production. This concept does not invoke the moral origins or the process relationships underlying resource development and management. In other words, the underlying forces in such a concept of common goods cannot regenerate resources. Such forces cannot alter either the epistemological premise or the politico-economic culture of the dominant system in which the forces prevail, namely the occidental order. Ecologically conscious institutions and policy directions in this regime of development only reinforce the mechanisms that deter resource depletion and wastage. For example the United Nations' programmes dealing with women's, rights population control, poverty alleviation and sustainable development have had with little effect in the midst of the political elitism and Western cultural dominance in spite of the clamour for rehabilitation of the underprivileged groups in the Western world (United Nations, 1990).

Resources as common goods in the knowledge-centred world view are conceived as a flow of knowledge that subsequently attains material form as economic goods and services through the human understanding and application of the moral laws. Thus the regenerative nature of a resource as a knowledge-induced endowment that can recreate itself is permanent in this order. The difference between economic goods and services, as pointed out earlier, does not occur in this morally induced meaning of ecological commons as a resource concept. This is because materiality and enjoyment are not the prime objects of well-being. Only the moral root is

the essential premise. This epistemologically induces felicitous forms to materiality. The concept of resource in this order embodies the attributes of *Shari'ah* governing material and moral change that take place with mutual complementarity. These moral and material 'tuples' become the new grounds for the persistently evolutionary knowledge-centred world view. With the evolution of knowledge, the knowledge flows as resources impact upon the order of moral-material simultaneity, and bring about social transformation. Institutional impact within the dynamics of Islamic political economy now impart the process model of resource management, enhancement and social transformation.

A GENERAL THEORY OF RESOURCES, GOODS AND SERVICES

A general theory of resources taken up in its relationship with the product (goods) and factors (services) markets can now be derived from the above discussions. I will use an ethico-economic general equilibrium definition of the economy to develop the general theory. An economy is defined with in the framework of moral-material simultaneity through the endowment of resources that are regenerated and sustained by the continuous production of knowledge. This in turn affects the evolution of consumption, production and distributional menus. It assigns prices in terms of the exchange of knowledge-augmented material goods and services. In symbols, the corresponding definition of the economy is as follows:

$$E(k) = E\{C(k), P(k), D(k), p(k); R(k), f(k), \geq\}$$

$$R(k) = R\{C(k), P(k), D(k), f(k), \geq\}$$

where C , P and D are consumption, production and distribution menus, all defined in terms of knowledge flows, k and p is the price arising from exchanges in 'ethicised' markets. Hence p is a function of k values. R is the resource base and is defined as recreated k values through the interactions between moral and material things, that is, between polity and markets. The recreated k values are determined by an underlying production method, $f(k)$. \geq denotes interactive preferences through the interactive-integrative processes (*Shuratic* process). $E(k)$ is the 'ethicised' economy and is thus seen to evolve through recreated values of k through bundles of consumption, production and distribution, and hence through the ethico-economic general equilibrium system.

In this definition of the 'ethicised' economy, the general concept of resource $R(k)$ is seen as recreated moral (k) and material $\{C(k), P(k), D(k)\}$ complementary forms. This complementarity is enabled by the existence and reproduction of k values, which in turn is the result of a polity-market (ecological) interaction-integration process (*Shuratic* process). What is true of C , P and D is equally true of a much larger bundle of human possibilities.

Note also what happens to prices in the 'ethicised' economy: p does not arise from an invisible market exchange but from a market that is visibly guided by preferences, \geq . Since it is the result of perpetual, knowledge-induced, polity-market interactions and integration followed by the further evolution of processes, only expectational equilibrium prices and not globally equilibrium prices can exist (Boulding, 1955).

DERIVING THE OCCIDENTAL CONCEPT OF RESOURCES

From this general definition of resources, the specific one for the occidental order is the degenerate form, when $k = 0$. Then $\geq = \phi$, $k(k) = 0$, $D = 0$, and p is parametrically determined as the 'global' equilibrium market price (can be further corrected for social externalities) out of invisible market exchange. The definition now assumes the Debreu form (Debreu, 1959).

$$E = E(C, P, p; R)$$

$$R = R(C, P)$$

Consequently resource R is either the result of substitution between C (service) and production (good = product) or it must permanently deplete itself as C and P increase, finally to be led into an 'ice-age' of human extinction. The latter is shown by the fact that

$$dR = (\partial R / \partial C) dC + (\partial R / \partial P) dP$$

Let $p = F(C, P)$. Then

$$dp = (\partial F / \partial C) dC + (\partial F / \partial P) dP$$

Between these equations we solve for dC and dP and obtain

$$dC = [-(\partial F / \partial p) dR + (\partial R / \partial P) dP] / DD$$

where

$$DD = //(\partial F / \partial C)(\partial R / \partial P) - (\partial F / \partial P)(\partial R / \partial C) //$$

$$dP = [-(\partial R / \partial C) dp + (\partial F / \partial C) dR] / DD.$$

With increasing C and P , p will increase with R declining. Thus

$$(\partial F / \partial P) > 0, dR < 0; (\partial R / \partial P) < 0, dp > 0.$$

Hence dC will run down to zero to the point where prices will be indefinitely high as R decreases acutely. The same result holds for dP . These results are further shown by the fact that now

$$(\partial R / \partial P) dp = (\partial F / \partial P) dR.$$

That is

$$(\partial R / \partial P) //(\partial F / \partial p) = dR / dp < 0.$$

In other words prices and resources are inversely related, irrespective of consumption and production volumes. Hence as R declines sharply, p will rise dramatically. A similar case will exist with respect to production. With all this, as R declines indefinitely C and P will decline indefinitely as well. This is the meaning of the 'ice-age of existence'.

SOCIAL WELL-BEING AND THE GENERAL THEORY OF RESOURCES

The social well-being function in the general theory of resources is a knowledge-centred, moral-material criterion that both evaluates and targets a certain level of moral-material improvement. Since the goals are set and the post-evaluation is carried out in the representative *Shura* (s) as strings of hierarchically interrelated microcosms, such a general index takes the form

$$W = W\{C(k), P(k), D(k), p(k)\}, \text{ with } F = F(k).$$

But in the interactive and evolutionary knowledge-based cognitive process, k will continuously regenerate as it is formed by the previously existing values of $C(k)$, $P(k)$, $D(k)$ and $p(k)$. Thus a further relationship to go with the above ones in the guidance and post-evaluative functions of *Shuras* is the system given by

$$G[C(k), P(k), D(k), p(k)] = k'$$

where k' is an iterated value of k arising from the previously established moral-material cognitive forms. With these iterations, a circular causation and continuity process like the one shown in Chapter 3 arises.

The formation and simulation of the social well-being function is shown in Figure 6.1. In the evolution shown by the circular flows, the greater degree of knowledge reproduction is shown ultimately to cumulate in the complete stock of knowledge. But such a final state cannot be realised within the temporal order. The *Qur'an* calls this the final limiting value of total well-being in the hereafter (*Akhira*), likewise in the origin (*Lauh Mahfuz*) the total well-being of creatis is referred to as the supreme felicity.

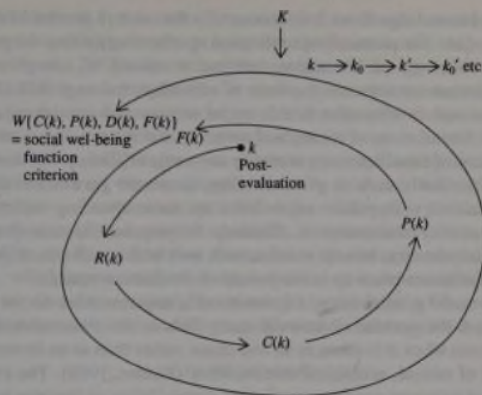
DERIVING THE SOCIAL WELL-BEING INDEX IN THE OCCIDENTAL ORDER

In the degenerate form of $k = 0$, $D = 0$, the evolutionary form shown in Figure 6.1 dies. The social welfare function becomes static and optimal in a narrow domain. It assumes the form $W = W(C, P, p)$.

An example of the latter kind of social welfare function is the one given by Gordon for the macroeconomy (Gordon, 1967). In this form we can replace C by the (un)employment rate (service), P by output growth rate (good = output), and p by the inflation rate (bad = inflation or good = price stability). Clearly then, all the limitations of marginalist substitution and the implications of this for the 'ice-age of existence' return.

Yet another form of such a social welfare function is the strictly neo-classical one, wherein C and P are defined by the utilities of independent consumers and the production menus of independent producers; p is then a discount rate that accounts for evaluating the intertemporal allocation of resources.

In all of the above the appearance of time as an independent variable does little to explain the essential knowledge-induced dynamic process. Changes in the social welfare function with changes in the variables over



Notes:

K denotes the stock of knowledge in its divine completeness as unity. This is a topology; hence it is not necessary to estimate it numerically to derive inferences from it. k denotes knowledge flow.

$R(k)$ denotes a knowledge-induced resource bundle.

$C(k)$ denotes a knowledge-induced consumption.

$P(k)$ denotes a knowledge-induced production.

$D(k)$ denotes a knowledge-induced distribution.

$F(k)$ denotes new knowledge formation arising from the phase of post-evaluation in the *Shura*.

The direction of the arrows indicate the path of knowledge evolution,

$k \rightarrow k_0 \rightarrow k \rightarrow k_0 \rightarrow \text{etc.}$

Figure 6.1 A general picture of social well-being in terms of resources, goods and services

time is simply a repetition of a stereotyped structure of neoclassicism and its prototypes on the question of resources, goods, services and social welfare.

HUMAN RESOURCES

From our discussion of the general resource concept *vis-à-vis* social well-being, goods and services we derive the conclusion that human resources in the knowledge-centred universe appear as knowledge flows. The

essence of knowledge flows is fundamentally the creative process of deriving rules from the premises of unification epistemology using the pervasive methodology of interaction-integration among all categories of agents. Human resources in the form of education, training, skill formation, personnel development, health, social security and so on are specific cognitive formulations of society and economy that are required to address the problem of simultaneously attaining economic efficiency and distributive equity. Goals such as price stability, economic growth and deficit control related with public expenditure on these spending outlets are designed to maximise economic efficiency. Employment, income distribution, social security, benefit entitlements, and health and education are some of the issues taken up in the pursuit of distributive equity.

Hence in the general theory of resources, human resources do not arise solely from the premise of material ends. This is also the case with the environment when it is taken as an end alone, rather than as an instrument and goal of ethical, ecological sustainability (Kidder, 1988). The ethical concept of common goods suggests that sustainability as the true goal is essentially an issue of human ecology. Within this the environment is taken up as a facilitating instrument and not as a target. Therefore intertemporal sustainability for future generations means a creative process of knowledge formation that is transmitted intertemporally. This in turn carries with it the moral-material focus found in the meaning of ecological commons as sustainability of knowledge and its cognitively induced material forms.

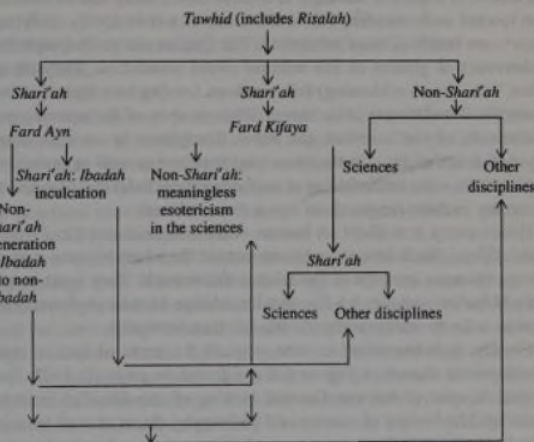
By treating the general concept of human resources as knowledge flows premised on unification epistemology, and evolving as a process towards complementarity by cause and effect, neoclassical marginalist substitution is rejected. Along with this, all the adverse consequences of resource depletion and inequity of social well-being are avoided. The much misunderstood neoclassical concept of education, manpower training, skill formation, personnel development and so on as human resources is now replaced by the resource of knowledge flows alone.

THE ISLAMIC STRUCTURE OF THE TREE OF KNOWLEDGE

The Islamic philosophy of knowledge in regard to this primal concept of human resources is shown in Figure 6.2. *Fard Ayn* is shown to be solely premised on an understanding of the unity of God (*Tawhid*) and the prophetic examples (*Risalah*). Yet from the concept of balance given by the *Qur'an* – the *Risalah* (= *Sunnah*) – one can infer that an unbalanced

pursuit of *Fard Ayn* is not a recommended course of human resource development. This was also pointed out by Ghazzali with respect to his times (Husaini, 1971). Since the blind pursuit of *Fard Ayn* without a balanced outlook on its application in society does not increase social well-being, in this case *Fard Ayn* becomes a non-*Shari'ah* matter in human resource development in the Islamic framework.

Similar Islamically degenerate effects are exemplified by the unnecessary discourses on the metaphysics of God's existence that engaged the Mutazzilites. Another example found in contemporary times is the overemphasis placed on the scholastic interpretation of Islam (*Fiqh*). During Imam Ghazzali's time there was an excessive number of theologians, which prevented the balanced division of occupational specialisations required for a properly functioning Islamic society. Ghazzali wrote vehemently against this as being socially wasteful and against the spirit of



Notes:

Tawhid: divine unity.

Risalah: prophetic traditions.

Shari'ah: Islamic law. *Fard Ayn*: obligatory knowledge.

Fard Kifaya: recommended but not obligatory knowledge.

Ibadah: divine worship.

Figure 6.2 Classification of human resources in the Islamic framework

Shari'ah. The need for a balanced nature of *Fard Ayn* is also to be found in Imam Shatibi's theory of public purpose (*Al-Maslaha wal-Istihsan*) (Choudhury 1993; Masud, 1984).

Likewise, although recommended (*Fard Kifaya*) though not obligatory (*Fard Ayn*) knowledge, *Fard Kifaya* cannot be pursued in the absence of *Fard Ayn*. The sciences of *Fard Kifaya* are therefore inevitably garnered by the functional nature of *Fard Ayn* in order to understand the meaning and derivation of interpretations of the *Qur'anic* text and to instill God-consciousness (*Taqwa*) into such interpretations. Cases to the contrary can be found in Imam Ghazzali's refutation of the philosophers and mathematicians of his time, who he found to be indulging in abstruse sciences with no utility to the cause of Islam and the Islamic community (Berggren, 1992).

All non-*Shari'ah* sciences or other studies – meaning all those that are not linked to objective attention to truth in God's unity and its externalisation toward understanding life in the midst of a consciously unifying universe – are bereft of inner coherence. The *Qur'an* categorises such disjoint endeavours as glitters of life without sound foundation. They disappear when 'rain' (truth = blessing) falls on them, leaving bare their rock bottom (unfertile foundations) (Ali, 1946a). Thus in spite of the seeming accomplishments of the sciences and other disciplines in an area bereft of *Tawhidi* foundations – in their essential structure as well as in their social applications – the embodiment of methodological individualism and moral neutrality in them throws them into a denial of truth.

Hence every non-*Shari'ah* human volition is neither a *Fard Ayn* nor a *Fard Kifaya*. Such human volitions cannot therefore become part of the human resource concept in the Islamic framework. They must be phased out of Muslim societies by *Tawhidi* knowledge-based transformation over time in order to realise authentic Islamic transformation.

Finally, it is important to note why all the areas of human resource development shown in Figure 6.2 are found to emanate from *Tawhidi* origins in spite of the non-*Tawhidi* leaning of non-*Shari'ah* branches of learning. The history of science and philosophy shows that all branches of learning emanated from some metaphysical origin, wherein the question of God and existence was taken up. Thus all of these human volitions had *Fard Kifaya* as their origin. However, as in the case of the degeneration shown for *Fard Kifaya* and *Fard Ayn*, the early philosophical pursuits became severed from their divine roots. Thereafter they evolved independently of the divine origins of thought. Such an emergence of non-*Shari'ah* studies in the history of thought explains by contrast the great relevance of *Tawhidi* epistemology in a new perspective of moral science. The *Qur'an*

makes this point clear when it says that even falsehood derives its permission to exist from the divine will, and that everything originates from the divine roots and return to it (Ali, 1946b).

Hence there must permanently exist interconnections between the two domains of the unified total knowledge scheme in the *Shar'iah* framework. Finally, all that is outside this purview of a total precept of education, remains outside the *Shari'ah* science. This last category does not provide the type of *Qur'anic* knowledge flows premised in *Tawhidi* epistemology. Such a domain of education constitutes the human resources of the occidental order, since as we have seen, the *Shari'ah* orientation towards knowledge and the non-*Shari'ah* approaches to instrumentalist education as a human resource are contradictory concepts. Therefore any adoption of the latter is not seen to play a developmental role in the Islamic perspective.

A CRITIQUE OF THE SCIENCES IN THE NON-TAWHIDI FRAMEWORK

The above conclusions point to the fact that no science – even mathematics and medicine – is neutral of *Tawhidi* foundations. The question then is, why have these other sciences shown such prowess while the contemporary emergence of the *Tawhidi* sciences is nowhere to be seen? What then is the practical rationale of the concept of human resources discussed above in the Islamic perspective?

To answer these questions one needs to examine the structure of science and technology first. Science and technology are not the same thing. We have earlier explained the occidental concept of technology as an adaptive method for controlling the material effects that emanate from a cultural heritage of science. In the knowledge-centred understanding of technology, it is a means to generate and continue the production of knowledge through extensive interlinkages between science, society, economics and institutions. The material artefacts of life are merely representations of the knowledge-induction process in the cognitive order and in the continuity of the creative process. Thus the moral-material aspects of technology are taken up in cognitive expressions of technology as an instrument of the knowledge-forming world view.

Science, on the other hand, is an understanding and explanation of what things are, how their structures function through a vast web of linkages – yet premising all such explanations on a minimum number of assumptions. This is also the way Bertrand Russell recently and Leibniz earlier

viewed the domain of science. For Russell, science is a system of logically established relationships (Russell, 1990). For Leibniz, it is a system of logical relationship starting from a minimum number of assumptions (Northrop, 1951). Leibniz is quoted as saying that if a geometrical point is meaningful enough to explain the universe, then that point is more substantive than the universe itself (Russell, 1925). The axiomatic premise of science defines the framework of a scientific endeavour. This is legitimated by a logical framework of theory followed by its experimentation. The theory must be built upon certain axiomatic foundations.

In earlier chapters of this book we discussed the fact that what led science away from its moral moorings was its methodological individualism. The resulting dualism separated the morally neutral disciplines from any divine connection. Stephen Hawking recently wrote that, although the end-all of science is to search and discover the unified structure of forces and fields in physics, he is not ready to accept the persistent role that divine laws play in such a unification principle (Hawking, 1988). The same can be said of Descartes and Einstein earlier (Descartes, 1954, Einstein, 1954).

Yet the structural complexity of science increases because of its search for unification across systems. Physicists call this the search for grand unified theories (GUTs) (Kaku and Trainer, 1987); socio-scientists call it a theory of everything; (Barrow, 1991); and thermodynamic scientists call it entropic behaviour of interactive systems (Coveney, 1988). Hence science has always been seen to explain a web of interactive relationships relating to the universe. But because of the constraints of materiality imposed by scientific axioms, this search for unification has remained within the material domain alone. The end result has been what Weinberg calls 'the dream of a final theory' – at least to date (Weinberg, 1992). In Chapter 1 I brought up this structural debility of occidentalist epistemology in terms of the Smithian epistemology of natural liberty that emulated Kant's *a priori* metaphysics.

Even in the discipline of mathematics, at the epistemological level Godel criticised Whitehead and Russell's mathematical machine by his theorems on the incompleteness of mathematical philosophy (Godel, 1965). The point Godel made was that assumptions establish the framework of mathematics. Hence the explanation of structures changes in different mathematical frames. This is almost a Popperian legacy, extended to the hitherto-assumed perfect machine of the mathematical sciences. Hence, according to Godel's views, relativity, quantum theory and Newtonian physics are true only in their own frames of reference. Thus the occidental perception of science remains substantively incomplete.

Science is limited by the extent of perception and rationalistic individualism in systems that operate according to their own axiomatic frames. Scientific endeavour has been viewed as private or public sciences by Holton who refers to such categories of sciences. (Holton, 1975)

The technology emanating from science is a culture of science. Technology represents the ways and means by which the claims of science about the material order can be realised for human utility. But in the limited view of scientific structure, the external manifestation of technology is governed by controlled experiments to make things work. Medicine, then, is seen as a construct of the scientific structure of DNA. Efficient surgical equipment, new antibiotics and life-support systems for coma patients become the technologies relating to controlled experimentation. The effectiveness of such systems is established in the controlled experimental environment in which they tested. Such experimental systems are extremely expensive, affordable only to rich countries and the very wealthy in developing countries.

There are social costs associated with such expensive technologies too. Today such costs are reflected in terms of pharmaceutical waste and a decline in the human immune system. New diseases are appearing and old ones are returning as the capacity of the immune system declines. This is authenticated by recent studies in medicine.

The revenues from medicines are obtained from high sales prices or by government provision out of social spending. The outbreak of Ebola plague in Zaire in 1995 has been associated with environmental degradation in Africa caused by Western technology, high-powered drugs, insecticides and environmental destruction that unleashed deadly viruses causing them to invade human communities. All in all the social motive to produce life-saving devices inflicts costs on physical and human ecology. Medicine is seen in this complex of relationships between its technology, experiments and effectiveness, as a means of perpetuating the complex nature of human debilities generated by its own system either directly or through a failure to generate large scale systemic methods of cure. It is such costly costs associated with modern medicine that goes unattended.

THE ROLE OF ALTERNATIVE SYSTEMS OF MEDICINE AS A HUMAN RESOURCE

The question then is, can alternative medicines and medical theories be developed to produce a more ecologically sustainable physical and human environment? For this to be done the private sector, universities, research

institutions, governments and international cooperation would have to be devoted to the idea of an ethically oriented ecology in the relational sense of knowledge-based interactions.

In a recent cholera outbreak in Rwanda a simple Bangladeshi saline mixture proved highly effective. Herbal and homeopathic medicines have long been used to treat common illnesses in developing countries. The development of herbal medicines was proposed by the developing countries within the biodiversity agenda of Rio Earth Summit. This proposal was met with dissatisfaction by the industrialised countries and their pharmaceutical firms and doctors. All this points to a situation of lack of sharing of 'alternative systems' of medicine by the established medical culture and its claims on technological advances.

The West is caught up in the controlled experimentation of science by means of expensive technology. The result is a world of controlled and segmented fragments within the domain of science in the name of specialisation. Controlled simulation of experiments are reflected in the make-belief realms of the Disneyworld. Recently, the French nuclear tests in the South Pacific were intended to feed data into a simulation project in French nuclear laboratories. Thus the technological advances of scientific simulations are carried out without a purpose and a moral value in them.

Hence the wondrous effects of science and technology are the result of costly models that serve narrow local interests. The hegemonic power of such scientific and technological pursuits is being enhanced beyond measure throughout the world, as alternative medicines continue to be banned in many countries. In the face of all these developments, costly means are being used to cure debilities. For example expensive and harmful pesticides are being used to protect plant life in the name of conservation, whereas preventive methods could be used to initially control physical and human ecological ills.

THE QUESTION OF HUMAN RESOURCE DEVELOPMENT IN LIGHT OF THE CRITIQUE OF SCIENCE AND TECHNOLOGY

The Demography-Development Question

The question of human resource development can now be taken up in the context of the above criticism on the limitation of science and technology by control and localisation. In the occidental framework, while technology serves to establish the control aspect of science, human resource

development serves to establish that controlled experimentation of technology. By treating occidental technology to denote efficiency and its manpower to denote resources, we can deduce the economic relationship between output and input.

We have argued above that in economic theory human resources are seen as a means to serve the end of economic efficiency. With this argument in place, the labour market in industrialised economies is characterised by segmentation and dualism between occupations and sectors. The greater the separation between skills, the greater the assumed economic specialisation by division of labour. Thus the entire labour market becomes rigidly governed by a wage structure internal to the segmented labour market. Now production and employment compete with one another in the name of economic efficiency, while the optimisation of resources and objectives is realised.

Industrialisation in the West has experienced an historical evolution of a similar nature (Bogue, 1969). Industrialisation started with the first phase of agricultural production. This phase of development was endowed by its own social preferences, and the occupational structure was predominantly agrarian. Demographically, this phase was accompanied by a steady population increase. Fertility was high but so too was mortality, particularly infant deaths. Consumption was high because of the high child dependency ratio.

The above stage was followed by a shift into manufacturing and secondary production activities, with the occupational structure following suit. Demographically there was a swing towards urbanisation and a steady, long-term increase in population size. Health and medical services improved.

Next came the rise of the service sector, and service sector occupations now abound. The birth rate has declined and there are more women in the labour force. The consumption pattern has shifted from necessities to wants. The mortality rate is outstripping the fertility rate, leading to a decline in population size and a larger proportion of elderly people. Retirement costs and the demand on health and welfare services is increasing social costs from the side of high-level consumption (Barlow, 1989).

It is important to note the occupational structure of this final phase of development and demographic change. If a service sector occupational structure predominates, this will cause lower productivity and a higher demand for wages. Consequently inflationary pressure will increase and real growth will fall. This will impoverish a society with an ageing population with a high consumption demand. If the occupational structure is

manufacturing oriented, then too the labour force is not forthcoming. Hence all secondary sector production would become capital intensive. The consumer goods sector together with the capital goods sector would become capital intensive. Thus the net cost of social production would increase in this last stage of incipient decline of population size.

Industrialised societies are currently trapped in this convergent and phased-in transition to the last demographic and developmental stage. The adverse relationship between demographics and socioeconomic development marks a critical turning point in relation to the economic sustainability of the West. It is marked by the stage of incipient decline of population, lower growth, mass consumption and high social and private costs.

The flaws of the human resource development concept across such social and developmental structures are several. First, intersectoral and interoccupational economic dualism leads into a phase of growth and development that evolves by a process of resource substitution. Consequently the pressure of labour market constraints, the absence of complementarity between the labour market and industrial sectors that could endogenise household production in labour-market decisions, and the excess demand for goods other than basic needs, combine to bring about the transitions presented here. Second, the concept of socioeconomic development in the conventional concept of demographic transition is a discrete rather than a continuous one. This causes the demographic-development phases to separate from each other. They are independently characterised by their own structures of demand, population and labour market needs, costs and production specialisations. Third, as the final phase suggests, the movement of economy and society is trapped in these entropic states because of the increase in social costs. Economic growth along with its sectorial and occupational consequences in the product and labour markets, respectively, and the type of demographic transitions associated with developmental change, remain problematic in the large.

The Continuous Version of Demographic Development

Human resources such as age-sex population composition, labour, occupations, sectors, health and medicines are all responsive to cause and effect in transitions of the above type. No allowance is made in this development perspective to organise life, human thought and development in a continuous process of intertemporal and cross-sectional social interactions. Development and demographic change must then be alternatively viewed

as a continuously interactive and creatively evolving historical process. When so viewed, the abovementioned human resources evolve not by a planning for the kinds of phases given by the concept of demographic transitions. Rather, human resource is seen as the cause-effect of the direction of change that is brought about by interactions among a complex of factors.

In other words there are an infinite number of phases in the demography-development process (Choudhury, 1978). When so viewed, the agents in the economy and society are made to think before arriving at the last of the phases described above and then to set up checks and balances in order to avoid converging into the final phase of demographic transition. Such a cautious approach would also forestall the inevitable costs of socioeconomic evolution. Instead such a society would aim at complementarity between household production and the labour market. The end result would be a negation of the entire pattern of demographic-development transition noted above, and its replacement by a demographic-development regime premised on a globally interactive world view.

The fourfold transitions are the result of scientific means (health and medicines) that structurally views societal change from the side of particular kind of controlled experimentation. This is of controlling mortality to generate a corresponding hedonic consumption behaviour of the few with the affluence. Likewise the delivery system of medicine in this system acts as a technology. The professionals concerned with this technology and science are seen as instrumental in reinforcing the system and attending to the problems that they themselves create (Lutz, 1994). Hence in the final phase of evolution, more doctors, nurses and medical expenditure are needed to provide for the ageing population. The health costs of all countries under such expensive regimes are found to be phenomenal and a principal factor in national debts and deficits (OECD, 1984).

Alternatively the health and medical system could be seen as a technology to save lives through the process of collective sustainability. Now the agents in the process anticipate the inevitable resource depletion situation of the last phase of demographic development and make the necessary changes to avoid convergence to that stage. Creation to the interactive agents always brings about diversities in the midst of possibilities that an interactive world bestows. Such a belief and perspective of society and economy at large is now built into the interactive knowledge-based world view of the alternative demographic-development interrelationship. This brings us to an application of the Islamic perspective of human resource development.

APPLYING THE ISLAMIC PERSPECTIVES OF HUMAN RESOURCE DEVELOPMENT

The concept of human resources in the context of interactive, knowledge-centred development in the Islamic perspective starts from the premise of the *Shuratic* process shown in Figure 6.2. In the field of occupational development to realise a functional society and economy, *Fard Ayn* starts by instilling human affirmation of the divine laws (*Shari'ah*). The process requires inculcation of high Islamic values in the *Sharees*, and their capacity to know the precepts of *Shari'ah*. These requirements at the level of all micro-*Shuras* become the background for enactment of the knowledge flows. Now each enterprise at all levels, together with their supporting institutions, are mobilised by their respective *Shuras*. But the functional use of the values and knowledge premised in *Shari'ah* is realised by simultaneously linking up *Fard Ayn* with *Fard Kifaya* among the *Sharees* and the *Shuratic* world view. This link sets the relations between the divine laws (*Shari'ah*) and the Islamic socio-scientific order. An example of a subsystem in this order is the Islamic political economy. Thereafter such a linkage is sharpened and evolved for greater circular causation and continuity of knowledge through its relationship with the material order.

THE MEANING OF MEDICINE IN THE TAWHIDI EPISTEMOLOGICAL FRAMEWORK

Now let us apply the case of the medical profession to the above knowledge-based linkage. Premising the scientific structure of medicine on *Tawhidi* precepts means reconstructing the philosophy of medicine as a therapeutic rather than an antibiotic discipline (Cohen and Hogan, 1994). Its genre is now not the competing and isolational mechanism of DNA. Rather it means symbiosis among processes, so that each process feeds into the other with life-sustaining potential. In this symbiotic process, the principle of replacement of the bad by the true, means replacement or transformation of hostile antibodies. It means acceptance of antibodies as integrating agents empowered to replace the bad. A similar process is assumed to exist for the bad agents. Conflict and replacement in this system of medicinal symbiosis arises *between* these two categories, *not within* them. The 'truth' cells integrate more powerfully than 'bad' ones.

Now, death as a process is not seen as the subjugation of 'truth' cells by 'bad' cells. Rather it is interpreted as continuity of either knowledge or 'deknowledge' in the realms of these similar kinds of prototypes, but taken up at a higher level of analysis. That level of analysis is the spiritual plane (= truth cells of higher dimensions = knowledge) or the plane of ignorance (= falsehood in the higher dimension of 'de-knowledge'). (Choudhury, 1995).

When new cells are created, these are seen to arise from complementarity among true ones or bad ones. These categories remain separate from each other. This experience of categorisation exists in this life and in the higher dimensional process of death for the true cells or in the entropic plane of death for the bad cells. The process exists in this truth-falsehood continuum because, according to Islamic belief, the soul continues to experience increasing felicity or increasing defeat from the acquired worldly stock of goodness or evil, respectively.

This theory of medical science comes from the *Qur'an*, which says that the goodly tree has its roots deep and stable and is the creator of diverse forms of both moral and material benefits. The evil tree is shallow rooted and yields results that are weak and dissipated (Ali, 1946c). The *Qur'an* also mentions the unbounded pleasures of God for believers and severe punishment for unbelievers in the hereafter (Ali, 1946d).

The scientific structure of medicine premised on *Tawhidi* now brings a need to inculcate the primal epistemological understanding (*Fard Ayn*) in the *Sharees* of the medical sciences. The relational ideas of the therapeutic medicinal process bring together the moral (therapeutic) and the material (alternative medicines) in the delivery of medical services. In this way *Fard Kifaya* is linked to *Fard Ayn* in the creative process of knowledge formation.

The technological aspect of this structure of scientific theory depends on the means of performing functions that are necessitated by therapeutic and symbiotic medicines. Mathematical models of symbiotic behaviour among complementary agents in microcosms become algorithms for computer-designed antibodies under the truth and falsifying process systems of symbiosis and therapeutics. The computer scanner becomes a device to detect the nature of antibodies formed in these algorithmically symbiotic and therapeutic processes. Indeed medical science is now venturing into the area of electronically transmitted sensory readings of human feelings. Surgery is now interpreted as a mechanical means of removing unwanted antibodies by replacing false antibody relations and strengthening complementarity among the 'truth' antibodies.

OCCUPATIONAL DIVERSITY IN THE TAWHIDI FRAMEWORK OF LABOUR MARKET

Occupational categories diversify as a result of interactions in the socio-scientific order. Now occupational *Sharees* arise from the productive role of Islamic thinkers and scientists at various levels of inquiry. Human resources become an occupational diversity combined with the scientific and technological ramifications that legitimate the nature of economic, social and institutional transformations needed to support this in the labour market, in occupational categories, to generate sectorial interlinkages and man the educational, research and development capabilities that go along with the rest. When this transformation happens, the non-*Shari'atic* sciences are replaced by *Shari'atic* sciences in the broad meaning of this term. All disciplines are thus made to interrelate on the basis of the *Tawhidi* world view.

MANPOWER PLANNING AND PROJECTION OF MANPOWER REQUIREMENTS

How would manpower planning be carried out and manpower requirements determined in the *Tawhidi* world view of human resource development? From the above example premising both the structure and the organisation of scientific method in relation to economy, society and institutions, we derive two elements working toward realising manpower planning. First, there are the knowledge-forming processes of circular causation and continuity derived from the world view of unification as explained by *Tawhidi* epistemology. Second, there is the actual application and organisation of this algorithmic approach to society at large. In these two contexts, manpower planning now takes the form of a continuous process of development through guidance and interactions across all functional organisations in society.

Thereby manpower planning ceases to be an exercise taken up by public authorities. Instead it is conducted by firms, enterprises and corporations for improving the expertise and information needed by these institutions to interactively integrate their plans, technological know-how and societal linkages. The public authorities provide guidance to the business community in these areas.

The greater domain of interactions between enterprises and other institutions within the 'ethicised' markets of Islamic political economy determines the manpower requirements at the micro and macro levels.

Accordingly, training and expenditure by public authorities for manpower training and requirements, immigration and planning are jointly developed and shared among enterprises, institutions and government. Manpower allocations are therefore not predetermined. Instead they are left to market evolution. Manpower requirements are therefore, a micro-economic exercise, which then feeds into the macroeconomic developmental picture.

One further reason why macroeconomic manpower planning and forecasting of manpower requirements would not be popular in the Islamic political economy, is the non-uniqueness of such forecasts in the face of continuous knowledge induction, as the creative process becomes increasingly dynamic and knowledge becomes topologically dense. In such cases, the projections of forecasting models would be surrounded by Brownian motions in random fields of multiple equilibria surrounding the projection points. Such multiple equilibria would be intercorrelated, since they arise from the same *Tawhidi* interactive knowledge-forming process. Hence subjective uncertainty is reduced. The concept of randomness in this case of subjective uncertainty means the existence of such multiple correlated equilibria in the midst of diversities. The decision making underlying such processes and the dynamic multiple equilibria related with knowledge induced phenomenon would be full of diversity too (Vanmarcke, 1988).

MANPOWER REQUIREMENTS IN THE TAWHIDI FRAMEWORK OF RESOURCE

The above point can be further established by examining the following projection model in terms of the general theory of resources that we took up earlier:

$$R(k) = R[X_1(k), X_2(k), \dots, X_n(k); \geq].$$

All the variables in the above expression were defined earlier. Let $X_1(k)$ stand for manpower requirement. In the knowledge-centred world view all resources complement each other and form the human resource bundle, $R(\cdot)$. This is also the idea similar to that of the ecological common goods, in this general concept of resources.

If we are to determine the quantitative relationship between $X_1(k)$ and $R(k)$ and other resources, two things must be known. First, we must be able to invert this function in the sense of the implicit function theorem of differential calculus to establish the following:

$$X_1(k) = f[X_2(k), \dots, X_n(k), R(k); \geq]$$

k must be held constant at an assigned value, say $k = k_0$, to allow parametric simulations of $R(\cdot)$ and of the variables shown. In the knowledge-centred world view, such a constant value of k can be true only in the very instantaneous sense, not in the global sense, because of pervasive global interactions. If the evolution of k remains orderly, as in the Markovian representation of k , this would mean consensus. But in the knowledge-centred world view consensus itself is temporary. Each consensus gives rise to a higher order of knowledge creation. Hence such a model is only an indicative one for enterprises and planners in the very short term. The macroeconomic developmental objective, which is a long-term one, is therefore not served by the optimal nature of manpower forecasting methods.

TREATING THE MANPOWER REQUIREMENTS OF MEDICAL OCCUPATIONS IN THE TAWHIDI PRECEPT OF RESOURCES

This futuristic perspective of an Islamic orientation to human resource development from authentic *Tawhidi* roots, and subsequently pursued within the framework of the *Shuratic* process, has some support in the literature. *Scientific American* points to the rise of highly specialised interests among scientists in the area of symbiotic systems and therapeutic systems of medicines (Greenspan, 1995). In the history of Islamic medicine, Ibn Sina may have thought of such approaches to medical science, when he combined his metaphysical and philosophical views with medical science in his *Al-Qanun* (The Canons). In present times the medical branch of the Hamdard Foundation in Pakistan is pursuing the classical Islamic approach to develop an alternative medical system.

In the end, since the origin of a scientific theory of medicine is here afforded by an integration between *Fard Ayn* and *Fard Kifaya* so as to establish a functional society and economy, it becomes a substantive exercise in the knowledge-centred methodology of circular causation and continuity world view. All observations thus emerge from the application of algorithmic approaches to the study of reality. This is then followed by their experimentation to create the moral-material integration that recreates the *Shuratic* process. In this sense it is emphasised that the *Shuratic* process is now seen as a purely scientific one, emerging from the microcosmic domains of science and society.

EXTENSION OF THE ISLAMIC CONCEPT OF HUMAN RESOURCE DEVELOPMENT: A CARING SOCIETY

The symbiotic concept of *Tawhidi* science, which has now been extended to create a similar organisation in the socioeconomic domain, is equally applicable to all systems of life. Let us take the concept of a caring society within in the *Tawhidi* framework of human resource development.

In the knowledge-centred world view, the concept of a caring society is a globally interactive communion of various agents who tolerantly, responsibly and intelligently discourse on issues on the basis of a unified world, society, economy, institution and science. The search for this unique possibility for human freedom to be realised and for human potential to be generated with sustainability, brings us to the singular *Tawhidi* epistemology and methodology of grand unification by means of knowledge.

The caring society is a functional society and hence an organised one, with every department being activated by means of the discursive process. It is given scientific meaning on the basis of unification epistemology. It is thereafter externalised by continuous knowledge formation, as the discourse proceeds among and across all issues, given the latitude of freedom and the constraints of responsibility, as enunciated by the *Tawhidi* epistemological reference of the discourse. The legitimacy of this method of discourse and the constraints that define human potential and limitations are based on acceptance of such a world view by the majority of society. A caring society is therefore not a coercive society. It has to be ratified by the force of knowledge in the absence of coercion. Yet it must firmly establish its own deterrents that are legitimated by the *Shuratic* process itself. The knowledge centrality of the *Shuratic* process defines the character of freedom and the limits of the *Tawhidi* world view taken up in the sense of the global complementarity of the *Shuratic* process. This defines the human bounds of responsibility.

A caring society thus attains its goals and regenerates its staying power by means of the proof of a simulatively evolving social well-being function. Unlike the concept of social welfare, an utilitarian aggregate of neo-classical verity, the social well-being function is a cause and effect of the knowledge-centred discursive process carried to the level of a moral-material complementarity that is found to be realisable in real human existence. The epistemological ramification of this relationship is derived from the pervasiveness of the Divine Laws and their uniquely unified world view, which at once govern the realm of the spiritual and the

material. Thus the social well-being function of a caring society is an objective criterion with which to measure the collective levels of freedom and responsibility that are adhered to by society at every moment of its moral-material complementarity and evolutionary design. The attributes of *Shari'ah* characterise the dynamic process, from the point of knowledge formation to the evolving points of its continuous regeneration and causation.

Thus, since the performance of a caring society is evaluated by the well-being it delivers, it is premised on the central note of a general concept of human resource. This is the world view of knowledge as resource taken both in its primordial stock form (*Tawhid*) and then in its flow form (interaction-integration followed by evolution = discursions). The next thing is to describe the continuous path of socioeconomic development in this knowledge-centred framework caused by the realisation of material benefits, markets as 'ethicised' systems of social contracts, and institutions as guiders of the on-going process. Among these knowledge-augmented material creations are the instruments of human resources – education, health, security, welfare, entitlement, rights, income/wealth distribution and soon – everything that complement each other to realise the goals of social well-being.

With the concept of human resources being so explained, its organisation and sustainability are also taken up by a caring society. The goals of economic growth and economic efficiency are new complementing ones. They reinforce each other and other social goals, such as, equitable income distribution, human resource development, demographic change, equity and justice. The linkages between sectors, occupations, populations, economic development and growth are now defined in the following sense in a caring society.

POPULATION AND ECONOMIC GROWTH

Population change is not an adverse factor for economic growth, for it has an endogenous effect emanating from household decisions corresponding to the extent of complementarity between the household production function and the national economy. In the case of child care and old age, such an endogenous activity can be realised by compensating homemakers for their production of services for childcare. Such an endogenising of the household production in the national economy makes population a productive input in generating economic value added. The economic sectors are accordingly activated through their relationship with the household

production choices. Labour market participation is enhanced by the creation of household activity. The microenterprises particularly benefit from such forms of reorientation in the labour market, economic sectors and household empowerment gains by their linkages with the rest of the economy and society. Since population size promotes economic growth and development through structural change and empowerment, income and wealth distribution are generated. The concept of economic efficiency assumes a different meaning from the neoclassical one. In the midst of extensive interlinkages between household and the rest of the economy and society, household production must be measured and brought into the national income accounting function (Choudhury and McPhee, 1992).

What role do *Fard Ayn* and *Fard Kifaya* play in this human demographic-development framework? In Figure 6.3 we show that since every microcosmic unit in society, including the household, has a *Shura*, they are each guided by a combination of *Fard Ayn* and *Fard Kifaya* in their interactive framework. The *Shari'ah* relevance to such interactions means responsibility to abide by the Islamic virtues of self, family, sustenance and the freedom to choose within this purview accorded by the method of *Ahkam*.

The household and conventional production units have their own *Shuras*. The interactions among the various agents in such *Shuras* generate knowledge inputs that are pertinent to population and socioeconomic development. These interactions have an impact on the formation of 'ethicised' markets through the joint production methods between household production and conventional production. They interact with each other to contribute output to the economic sector. This output in turn feeds into the labour market and defines the emerging occupational structure. Likewise the economy as a whole, comprising economic sectors and the labour market, has its own strings of *Shuras* to determine the impact of *Fard Ayn* and *Fard Kifaya*. The government as an institution has its own inputs to the same learning process. Through the interactive and integrating operations in 'ethicised' markets (economy), the inputs of knowledge are interactively integrated to reach dynamic consensus and evolution.

In Figure 6.3 the interactive-integration process is shown by the circular causation and continuity of the arrows encircling household production, conventional production, the economy and institutions. The net result is the generation of social well-being. The social well-being function in this example of a caring society is shown in terms of population size (human resources), the economy (economic development/growth), policies (institution/government) and interactive preferences. The interactive preferences among these institutions are denoted by $\geq \gamma_{i+1}^3 \geq_i, i = 1$

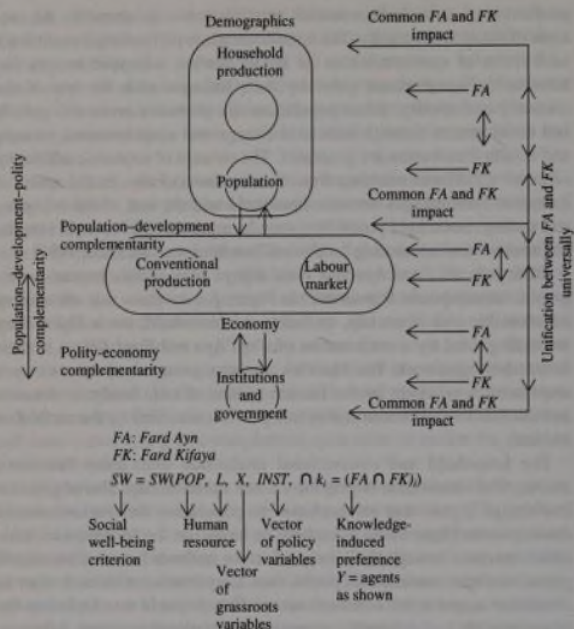


Figure 6.3 Construction of the Islamic social well-being function in the case of population-development complementarity with population as human resource

(household), 2 (economy), 3 (government), $\geq 1 = (Fard Ayn \cap Fard Kifaya)$, being the *Fard Ayn* and *Fard Kifaya* interactions within each of these agents.

In a caring society the above formulation, which is just one of the many examples of global interlinkages that can be established, it is found that resiliance is injected into the economy, society and ecology by the growth of population as a centrally creative pivot. Demographic transitions and socioeconomic development now move in tandem with the opportunities that are opened up in the knowledge-centred world view. Since knowledge generation for an authentically Islamic society is dynamic and

continuous, so also is the demographic-development interrelationship. Such an interrelationship negates the stereotyped changes that occur in the fourfold delineation of demographic transitions and their developmental relations in occidental social evolution.

CONCLUSION

The focus of this chapter was on the development of a general theory of resources and human resources in comparative Islamic perspectives. We have pointed out the distinct consequences and the rich methodological and policy implications that are inherent in the knowledge-centred world view premised on *Tawhidi* epistemology. The Islamic classification of knowledge and its link with the demographic-development perspectives in the circular causation and continuity model of the *Shuratic* process were explained. A few analytical sections were included to bring out the pervasive nature of knowledge in the substantive and instrumental context of human resource development. The interconnections between science, technology and the instrumentalisation of the general concept of human resource development with the corresponding nature of science and technology was explained.

These implications of the Islamic approach to the study of human resources, when contrasted with the concept of human resource, in the economic literature, show that there remains an inherent marginalisation of social values in the latter. The convergence of any world system to these other scenarios was shown to lead into what was called the 'ice-age of existence'. This concept was explained in relation to the systemic impossibility of sustaining resources or regenerating them in the face of unsustainable consumption and production.

Finally, the Islamic precept of a caring society was explained. Here the social well-being function was invoked to show how the interactive, knowledge-centred world view can be brought about. The analytical ramifications of these relational concepts were formalised.

7 Development Cooperation in the Islamic Perspective

Our objectives in this chapter are first to delineate the politico-economic relations of development cooperation by studying it as a powerful contractual arrangement between the rich and developing nations in an increasingly globalised world. We will then discuss the economic and ethical debilities existing in such a politico-economic arrangement. We will show how the great Muslim world can develop its own economic integration and common markets through a different concept, organisation and enactment of globalisation. The methodology of *Shuratic* process we studied in earlier chapters is once again brought to bear on what we call objective globalisation. The political economy is taken up within the Islamic world view.

DEVELOPMENT CO-OPERATION

Economic Aspects

The topic of development cooperation brings together the issues and problems of development in practical terms for resolution by means of the instruments of economic integration and economic cooperation. Such thinking in the economic literature and in the institutional scene came about after the Second World War. The groundwork of economic integration by means of a host of policies and instruments in the areas of finance, macroeconomic policy coordination and development packages across nations, is premised in what OECD flagged as and the Cancun Summit respectively called 'economic interdependence' and 'mutuality of interests' (OECD, 1984). The host of macroeconomic, institutional and programme developments in line with these two precepts have revolved around issues of what nation states can demand and realise from their contracting partners in global economic and political markets. Such contracts evolve incessantly in the power-sharing possibilities among the rich, developing, growing and poor nations (Callaghy, 1993). For some time the term used to describe economic and political power sharing in the world development arrangement was the 'North-South dialogue'. But

today, with the rise of the East and South-East Asian Tigers and Dragons, the concept of a South-South dialogue is gaining increasing momentum. Likewise in the North, macroeconomic policy coordination among the industrialised nations intensified after the end of the Cold War with the advent of the single European market and the capitalist transformation of Russia and its former republics.

Development cooperation is realised through particular economic instruments and institutions. Among these are geographical trading blocs, and monetary, trade and development policies are cooperatively formulated among the nations in these blocs. A supra-organisation to serve as the institutional platform for dialogue within the regional integration gets established. Such an organisation undertakes a security pact to protect member states against threats of economic, military and political destabilisation by external forces. A broader picture of interactions with the greater economic world comes about. The cooperative pact acquires a vision for attaining collective welfare. In the context of the North-South, South-South and North-North dialogues, economic integration is to be viewed as a complex system of the abovementioned groundwork for the internal functioning of these blocs in relation to the power politics of the global order. Thus there arises the theme of a political economy of regional integration within the global order (Ansari, 1986; Weiss, 1986, *Third World Quarterly*, 1982).

Let us now explain some of the purely economic interrelationships in the framework of trade and macroeconomic policy coordination in light of development cooperation. In the classical economic context, trade generates growth only when it generates national savings, and these savings form the basis of capital formation. When this objective is combined with the profit maximisation objective of producers, then capital-using and labour-using technologies are found not to coexist. This is because in the classical economic model (for example Harrod Domar) production costs are limited by a constant capital-labour ratio and technological change is of an exogenously prescribed type. Capital intensity based on a perpetual requirement of savings to form capital, necessitates interest rate to become entrenched in saving transactions. Besides, the assumption of technology that remain exogenous to developing countries causes the continued dependence of developing countries on industrialised ones to fuel growth – developing countries become the economic hinterlands of the industrialised world.

In world-system theory, such a dichotomy in the international division of capital and labour shows that all nations and regions are governed by the same pattern of capitalist transformation (Wallerstein, 1979). Trade in

the world system is simply a means of acquiring cheap imports and selling them at a substantial mark-up to the end-users. The importers are the capital shortage economies and the relationship between saving and capital-intensive technology is seen to bring about surpluses in the short run in the developing nations. Thus capital-surplus economies become exporters of such technologies and of capital needs in the world economy. Capitalist transformation repeats this process. The rentier developing nations imitate this process of capitalist transformation, join the mercantilist camp and perpetuate it as a world system (Tisdell, 1989).

In recent times, such a capitalist transformation in the mercantile order has been behind the rise of the newly industrialising countries and the trading blocs in capitalist economies of the South-East Asian region. We find that a *tripartite relationship* is emerging under the mercantilist relations in world-system theory. First, the export-led strategy of the industrialised countries is aimed at supplying the technology and loanable funds to preferred countries in South-East Asia. As a result South-East Asian development is based on high debts and capital-intensive production (Kohli, 1986). Secondly, there are inner dynamics within the South-East Asian region. This last relationship becomes a stereotype of the North-South relationship in respect to the emerging sub-world systems within trading region. Thirdly, there prevails a self-interest in the mercantilist regimes of the South that makes the member countries perpetuate the rentier self-interest behaviour through the South-North mercantilist relationship. The resulting tripartite relationship built upon the reinforcing world-system of new mercantilism and circularly flowing in the order of North-South, South-South and South-North capitalist relationship, comprises what we refer to here as the mercantilist world system under global capitalism.

In this world-system China and Japan are the dominant Eastern economic powers. Other members of this region are found to remain linked to this dominant situation as peripheries. Second, in the world-system of the South that imitates the North-South world-system, such members become individuated among themselves through competition. This process of trade and mercantilist relationship is repeated at every phase at the subregional levels. Third, the South-North relationship is the reverse of that between the South-East Asian region and the industrialised countries. The trade relationship here comprises the export-led side of mercantilism for South-East Asian region and the cheap import balance for the industrialised countries. On the export side for the South-East Asian region, cheap labour fuels the initial phases of their capitalist transformation into manufacturing and secondary sectors. Subsequently the manufactures so produced become the cheap imports of the industrialised countries. But the loans of the develop-

ing countries constitute their own funds that are now held by the financial institutions of the west, and from whom the developing countries must borrow such funds at an interest cost with conditionality. Besides, the developing countries and Western transnationals supply capital and technology in return for surpluses (Walter, 1987). The export revenues so generated provide the sums needed for capital formation and expensive imports from the industrialised countries. Such a transformation process is pervasive at all levels of economic growth and among all partners in trade.

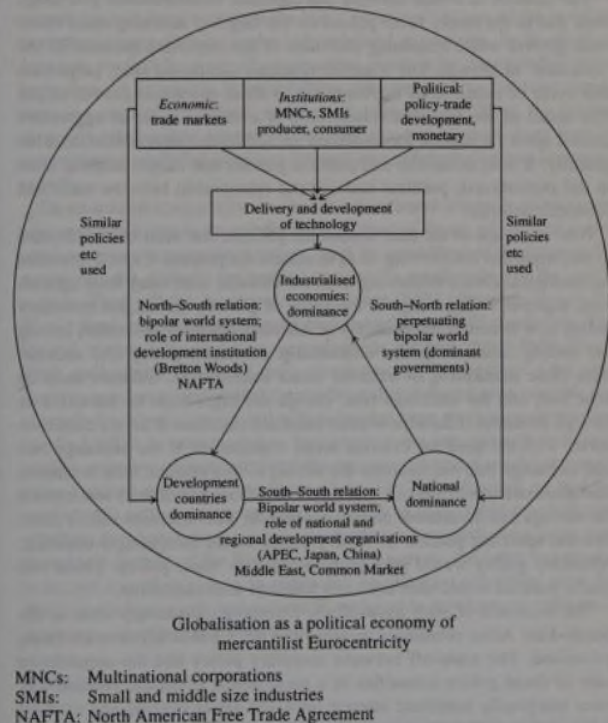


Figure 7.1 Tripartite relations in mercantile Eurocentricity

The details of the reinforcing tripartite interrelationship in which mercantilist Eurocentricity is found to survive as a world-system, are shown in Figure 7.1. The Figure also shows that globalisation as a political economy of economy-institution-political interface is defined by means of the reinforcing tripartite interrelationship.

The arrows in Figure 7.1 show the direction of relationships among the various components of mercantile Eurocentricity. The total globalisation is shown to intensify the mercantilist Eurocentricity.

The issue of new mercantilism and capitalist transformation gets deepened due to the empty focus placed on the target of attaining sheer economic growth while remaining oblivious of the important question of the 'structure' in growth. The tripartite relations mentioned here, perpetuate this cycle of relations of mercantilism to sheer economic growth target. The result of the tripartite relationship is a vicious cycle of aggressive animal spirit for capital accumulation caused by the mercantilist doctrine globally. It is an economic and political passion that cannot cease to exist in the institutional, political and cultural relationship between trade and economic growth.

Next we come to the macroeconomic policies that must be coordinated in this tripartite relationship so as to sustain the process. Capital-intensive technological choice emanating from the sectorial shift away from agriculture, together with savings as the focus of growth, means that monetary policy now becomes the mainstay of macroeconomic coordination among the trading countries in this relationship. Monetary policy also necessitates close monitoring of external sector stabilisation. Inflation must be kept low, and the exchange rate, though not high, must be attractive to foreign investors. Likewise interest rates are sustained at levels commensurate with the need for external sector stabilisation. If the exchange rate and exchange rate mechanisms are not set in this manner, then economic fundamentals would suggest that increasing debts and deficits will replace the savings and investment needed for growth. To overcome such a situation the spending portion of fiscal policies would increasingly diminish. Monetary policy would gain prominence over fiscal policy. These two macro policies would then exist in a trade-off with each other.

The existence of such trade-offs is becoming increasingly clear in the South-East Asian economies as more and more public services are being privatised. The trade-off between monetary policy and the expenditure side of fiscal policy intensifies in a neoclassical economic regime. Tax rates marginally substitute interest rates and affect internal and external sector balances. In other words, if employment is to be enhanced in the face of capital-intensive technological change, then increased tax rates will

have to compensate for lower interest rates, and thus less attention will be given to capital formation through capital-intensive production. Interest rate must be increased if tax rates decline in order to create a capital inflow (Kenen, 1985).

Macroeconomic coordination is known to take place at the level of such optimal policies for maintaining a trade-off between monetary policy (interest rate) and fiscal policy (tax rate). In the industrialised countries, monetary policies have become an accepted basis for macroeconomic policy coordination in favour of fiscal policies. Today, both supply-side economics and fiscal restraints are being exercised because of the inability to control rising deficits in the industrialised economies. In South-East Asia too, we find the wave of privatisation swept in by the capitalist transformation, to be unable in establishing complementarity between incentives on capital formation and social expenditure. Thus the global tripartite relationship cannot be anything else but to serve sheer ends of accumulating capitalist surpluses through export orientation and economic growth.

Development cooperation in the aforementioned tripartite relationship now assumes a purely growth focus. All financial flows, whether of a concessionary or a conventional nature, must be considered as instruments for sustaining the globally embedded mercantile relationship in the world system. Thus official development assistance (ODA) becomes tied to the World Bank structural adjustment requirements and IMF conditions. The United Nations development organisations support these IMF-World Bank policies by means of their development prescriptions. One such development prescription tied to conditionality is population control. For example the population control policy that has been so vigorously pursued by the UNDP is tantamount to legitimating the structure of economic growth regimes while minimising the pressure on social service expenditure. Another example is the focus of the Rio Earth Summit on making markets and private sector agents the engines of sustainable development, which to date has proved a fiasco. As market consequentialism gains over the ethical content of the Rio Earth Summit agenda, the latter has proven to be just a costly exercise in institution building for officiating what the West would like to call and enforce as sustainable development policies in its own perspectives (Keating 1993; *Network*, 1992).

Institutional Aspects

Some of the power politics in recent times that have been played out in the midst of such global relations have come to be known as the new

international economic order and the new world order, supported by the International Monetary Fund, the World Bank and the United Nations. The number of regional development organisations expanded considerably as economic integration became the order of the day. Thus globalisation of all economic integration blocs leads to powerful interactions among the whole gamut of national economic, military, security and self-interests taken across nations with well-established rules of the games of power maximisation under self-interest. What makes these rules of actions all the more legitimating to the global community is their sanction by individual nations condescending willingly or unwillingly to major nations.

This last condition of global convergence to the rules of capitalist engagement exists particularly because of the financial and technological implications that impinge upon the developing and industrialised countries. They involve flows of concessionary grants and loans (ODA) from the rich countries to the developing ones. They comprise debt write-offs and grants for highly indebted countries and politically unstable ones that are found to be worthy of assistance. They also involve the rights and privileges of member countries of development organisations in using their reserves of foreign assets with the IMF.

One of the most important of these assets is the special drawing rights (SDRs) of the IMF. It is provided to developing countries with a shortfall of foreign currency to pay for imported goods. The change of reserves in foreign assets also affects the movements of national currency exchange rates in specific ways. This in turn affects monetary policy, and thus there is a whole gamut of macroeconomic consequences for these countries.

Besides the ODAs, SDRs and debt write-off, there are several other special facilities and stand-by arrangements that the IMF uses to ameliorate debts and external sector disequilibria. The ODA funds are divided into tied and untied ones; bilateral and multilateral ODAs; ODAs from the OECD countries and those from the oil producing countries (OPEC ODAs). In the last category are ODAs from the Arab members of OPEC (OAPEC ODAs), which are usually untied. Most of the bilateral and multilateral ODAs from OECD countries are tied to specific requirements, dictated by the donors to the recipients. Hence they have stringent rules for specific use in accordance with the policies and conditions of the World Bank and the IMF. This applied even in the 1980s, when the developing countries most needed the funds to combat recession and inflation (Helleiner, 1983). The resulting financial shortfalls have led to debilitating debt servicing and imposed developmental burdens on the developing countries.

Political Aspects

The institutional and economic aspects are further interacted with the deeply political interests in development cooperation. The idea of mutuality of interests and global interdependence means that the tripartite relationship that exists in the purely economic scene we have discussed above, must reinforce self-interest for the agents. When self-interest remains vested equally among all partners, then no further incentive for trade can exist, for now there are no particularly differential prices available for tradables. Neoclassical trade theory shows this by means of goods and factor prices equalising across trading countries by the process of trade. Consequent to factor price equalisation, technology also homogenises across the region. Now no incentives exist for factors to move across countries. In the limiting case, the utility of each partner has been maximised. This is the well-known neoclassical economic theorem of factor price equalisation (Samuelson, 1948).

Thus for trade to continue and keep on generating profitability and growth, the tripartite relationship of global capitalism must perpetually cause unequal opportunity and expectation to motivate traders. Political power now enters the scene to create this situation of unequal sharing in goods, output and profits globally.

In the context of globalisation with unequally powerful nations participating in trade, regional economic blocs today have become a means of extracting rents from the global economy through the process of trade and diplomacy. Thus there are policy makers and price setters by virtue of their control over the finances and technology that continue to be in demand and supply. Then there are the policy receivers and price takers by virtue of the primary or semi-manufacturing nature of their goods and their need to remain in the competitive race of the global economy, determined as it is by the process of trade and pursuit of economic growth. This international allocation of financial, technological and factor resources that exist globally, is to be sustained in such a price-policy setting and price-policy taking situation. When the tilt in the underlying power becomes so excessive as to leave policy and power in one dominant order that survives on and sustains the intrinsic inequality of global mercantilism, then such a capitalist mercantile power is termed in this book as mercantilist Eurocentricity (Amin, 1989).

But power itself is a reproduction of civilisational and cultural claims to hegemony, as much as these themselves are sustained by technological, financial and productive power in turn. Hence Eurocentricity becomes a global culture of dominance created out of and sustained by the unequal

mercantile arrangement of the relationships that exist between price-policy setters and price-policy takers in the global scene. In world-system theory, this centre-periphery dependency has been reproduced and perpetuated throughout history.

A CRITIQUE OF MUTUALITY OF INTERESTS AND GLOBAL INTERDEPENDENCY

Economic Arguments in Political Dominance

Mutuality of interests in the Eurocentric arrangement of the global mercantile economy means that the economic and institutional powers promote convergence. Financial flows, development finance, favourable stand-by agreements debt write-offs and so on are just some of the convergence carrots that characterise power in this kind of capitalist world system. Economic perks of these types operating in an extended sense across the global system as well as between regions and within subregions mean, that 'mutuality of interests' becomes a strategy to exercise convergent interests of specific groups. Political elitism in developing countries and the democratic order in industrialised countries enforce the stereotyping of their dominant interests to conform with yet higher dominant interests to preserve the state of mutuality of interests. The greater interests of the populace are not brought into the picture to ensure fairness and distributive equity, as does not accord with Eurocentric power in the capitalist world system.

The political character of the industrialised nations arises from the economics of consumption by the population at large and from the democratic order in these countries that empowers people to follow their consumption preferences. The Western consumption pattern is inherently wasteful at all levels – individual, household, institutions and state. Democracy as a medium supporting large producers (transnationals) and powerful consumer associations, exercise the medium of voting to preserve and enhance mutual interests. Optimising production at minimum cost means that producers must preserve their supply of cheap inputs from developing countries when these are not available at home. Consumer associations bargain for lower-priced of goods and services to optimise the economic welfare of consumers. This too causes substitution by means of cheap goods from developing countries. Transnationals benefit from this by locating in developing countries, earning surpluses while generating rents in the local economy.

In the face of price stabilisation and political interests, industrialised countries activate fiscal restraints to reduce deficits. This helps to repatriate transnational profits and increases the economic welfare of consumers. Monetary policy is used to protect domestic manufactures against imports from developing countries. The well-known general system of tariffs and preferences (GSTP) while relaxing tariffs on commodities, applies tariff relief upto a certain level of processing. Some governments of developing countries feel handsomely compensated by the export revenues that have arisen from the liberalisation of trade in Northern markets. Yet these export revenues despite GSTP relief are used to buy expensive manufactures, technologies and capital inputs from the industrialised nations. As a result the opportunity to use export revenues to sustain economic growth and bring about real net output is sacrificed. Hence the promise of outward looking prescription in a liberalised trading world is steeped in high debt/export and debt/GDP ratios among the developing countries. In spite of their reduction in recent years as a result of some debt-swapping and debt-write-off measures, debts and deficits continue (Choudhury, 1994, 1996a).

Institutionalist Arguments Relating to Political Dominance

The Bretton Woods institutions and the United Nations claim that as international development organisations they are there to protect the economic rights of member states. The IMF for example, has instituted extensive policy mechanisms to guide its members along what it feels are desirable lines. One of these critical policies, for which the IMF was initially established, has to do with exchange rate alignment to attain balance of payments and price stability.

In order to finance its operations, as well as receiving contributions from the G7 countries, principally the US, and rich Arab States such as Saudi Arabia, Kuwait and the Emirates, the IMF also requires member states to hold their reserves in SDR. The weighted composition of currencies in the SDR fund determines how these currencies affect the value of members countries' currency exchange rates. The movement of the major currencies is determined by a combination of exchange rate and interest rate policies. Control of such a policy combination is a principal goal of monetary policy in the G7 countries.

What is the currency composition of the SDR funds in the IMF? The SDR, in which all countries hold part of their reserves, is weighted as follows: 40 per cent for the US dollar, 21 per cent for the German mark, 17 per cent for the Japanese yen, 11 per cent for the French franc and

11 per cent for the British pound. This weighting gives 19.1 per cent of the voting rights to the US (Brown and Hogendorn, 1994). One therefore recognises the overflow of G7-interests in general and US influence in particular, into all foreign reserve managements of developing countries, as a result of the above nature of SDR weighting. Such skewness in financial power intensifies further with the globalising impact of international trade liberalisation and their resulting effects on external sector debt and imbalance, in all of which developing countries' dependence on SDR deepens.

If the US were to lower its currency value to command a greater share than the Japanese of world trade, then the US reserve bank would sell dollars to buy other currencies. This would increase the foreign reserves of the US banks. But to avoid the risk of accompanying inflationary pressures at home, the US reserve bank would not increase the money supply. Rather it would supply treasury bills to commercial banks, which could be liquidated in the market to buy back the quantity of money that the bank would have made due to the increase in reserves. The holding of treasury bills is motivated by the attractive interest rates they command. Hence while foreign reserves would increase if the US lowered its exchange rate, interest rates would have to increase in order to avoid inflation. The higher interest rates would create a flight of foreign capital to US capital markets or US dollar-denominated assets (bonds sold in world capital markets, interest held by US transnationals and government investments). Developing countries would thus be left in a perpetually uncertain position between the export competition caused by the US exchange rate interventionist policy and the flight of capital in the face of high rates of interest abroad. There would thus be a compounded flight of world goods and capital to the US. Now since the SDR tends to remain stable, this would cause no special motivation among the member countries to change their reserves in SDR deposits.

The reverse situation – appreciation of the dollar – would result in the US reserve bank selling off its foreign reserves to buy back US dollars from the world capital markets. Following a contraction in the US money supply, short-term interest rates would remain high after a regime of lower exchange rates. Hence the direction of liquidity movements for the developing countries would not change in the short term. In the long term all such combinations of exchange rate and interest rate mechanisms are vigorously adopted by the US as the dominant holder in the SDR reserves. But there are no long-term currency realignments in the face of historically volatile currency markets. The situation of such currency and interest rate volatility would cause extensive uncertainty in world capital markets and growth regimes.

There is an embedded irony in such global capital market movements. First, because of limited resources in the world economy the G7 countries look for the most productive outlets. This has diverted a large amount of development funds away from the developing countries. Second, privatisation as a trend has provided the opportunity for Bretton Woods institutions to channel the developmental and financial prescriptions of the G7 countries, which have thus acquired the leverage to control the world interest rate and exchange rate mechanisms. Developing countries have been left hanging between the two extremes of the exchange rate and interest rate variations desired by the industrialised countries. Such a situation of uncertainty will not resolve itself as long as globalisation is pursued in Eurocentric self-interest at all levels of transactions.

The political and institutional implications of globalisation are intensifying the tripartite power-sharing relationship. As mentioned above, the combination of economic, institutional and political factors in this process is causing increased uncertainty and unsustainability at all levels of the world economy. This entropic behaviour of the world economy appears to have been hidden away in the midst of today's calls for a new world order and its prototypes in regional economic integration, the Western-style capitalisation of Russia and the end of the arms race. Economic growthmanship of the South-East Asian region is taking advantage of these polemics to hide the underlying power dynamics in these developing countries. The Eurocentricity of the world system is thus being extended to this South-South relationship (Staniland, 1985).

ECONOMIC, INSTITUTIONAL AND POLITICAL INTERESTS AND DEVELOPMENT COOPERATION

Had development cooperation using financial flows, trade and economic growth with macroeconomic coordination been a purely market driven exercise, which it is not, then a cost of the trade-offs and resource allocations could have been read off exactly. This would have been possible irrespective of the inequities in the market order. But problems become much more complex and destabilising for the global economy when institutional and political power impositions distort the allocations by the magnitude of uncertainty that cannot be estimated. There is no method of measuring the risk-price of such non-pricing factors. As uncertainties abound in the institutional-political decision-making process impinging upon market allocations, the spectre of mercantilism in the capitalist world system becomes a complex relation of indeterminate preferences of the dominant players. On

explained by means of Figure 7.2. Here a neoclassical methodology is used in light of the medium in which the existing globalisation process realises itself.

In the Edgeworth-Bowley box of resource allocation, we note that a point like a is non-sustainable because the interests of industrialised and developing countries are not equated at the margin. Dominance at all levels, combined with economic growthmanship in developing countries, allows the hegemonic interests of the G7 countries to establish a point such as a^* . Here the economic growthmanship agenda of both the G7 and the developing countries are jointly improved by the mercantilist outlook. The latter of these two cases serves the self-interest of the G7 countries. Thus $G7_1$ denotes the G7's perception of the extent to which development in the developing countries is conducive to their interests, in view of the complex of economic-institutional-political interrelationships defining Eurocentricity. $G7_2$ denotes the desired growth targets of the G7 countries as set by them. This dominance is shown by the deliberate policy of the G7 members to promote evolution of the global order along the arrow shown at a^* . Point a^* thus shows that there is convergence in resource allocation here, caused by the dominance of G7 members, as mentioned above. In the South-North relationship in this order, the dominance of industrialised countries is accepted and guarded by the elitist dominance within regional economic integrations. Consequently point a^* shows the case of acceptance of a much smaller level of self-reliant development within the developing region (DV_1). Such a situation presents a weak opposition to the G7's perception of its own growth potential (DV_2).

The complex of economic-institutional-political factors determining point a^* is shown by the random field around this point. But now the allocative mechanism remains indeterminate for G7 to formulate its optimal policies. Thus neoclassical economic methodology helps out the G7 countries by restricting all such factors to economic ones alone, for that is what can be quantified in terms of market exchange. Socioeconomic development for the developing countries and growth for the G7 countries are thus defined in terms of economic forces along the neoclassical approach to globalisation with Eurocentric dominance in it. The random field around a^* now reduces to the point itself. Here the slope of the line TT determines the relative prices for global resource allocation at point a^* under the above-mentioned consequences. In terms of marginals we obtain,

$$dDV_2 / dDV_1 = dG7_2 / dG7_1; \text{ That is, } p(DV_1) / p(G7) = p(DV_2) / p(G7_2)$$

where $p(DV_1)$ denotes the price-taking situation in developing countries for their designated level of self-reliant development. As an example, such a level of self-reliant development can be measured by the developing countries' acceptance of the G7's preferences under the generalised system of tariffs and preferences (GSTP). $p(DV_2)$ denotes the price taking by developing countries of their assigned level of acceptance of the G7's perception of the level of growth in the developing countries that industrialised countries would like to see in their own self-interest. This, for example, can be measured by the protection levied on manufactures and agricultural goods from developing countries. $p(G7_1)$ denotes the price as a perception set by the G7 on the limits of economic growth in developing countries conducive of G7's self-interest. This can be measured by the tariffs the G7 deems necessary to impose on developing countries' manufactures. $p(G7_2)$ denotes the price set by the G7 for realising its own economic growth by prevailing upon developing countries. This can be measured by the extent of economic growth in the G7 countries that results from blocking development in developing countries.

The above relationship shows that in the mercantilist world system, neoclassicism marginalises all political and institutional relations to sheer economic ones. In this way, what finally determines global resource allocation is the direction of relative price taking by developing countries as governed by the relative price setting perceived by the G7 bloc.

THE CONSEQUENCES OF GLOBALISATION ON THE MUSLIM WORLD

These products of globalisation are today having a very adverse effect on Muslim countries. The situation is made all the more complex by the coming of the World Trade Organisation (WTO). In turn, the goal of growth at the expense of development cooperation in the kind of dominant economic-institutional-political interrelationships discussed above, which cannot be explained by neoclassicism, is now seen to be detrimental to the Muslim countries. The WTO plan to harmonise the world economy into one grand trading community is a dangerous mechanism for global dominance by the US-led Eurocentrics with regard to economic, institutional and political interests at all levels (Choudhury, 1996a; WTO, 1993;

Ongun, 1994). The Muslim countries must be aware of this and act fast enough to arrest the socially unhealthy capitalist transformation while there is still time. These are the topics that we will now turn to.

The Current Economic Picture for the Muslim World

The evolution of Muslim countries under the custody of Western designs, models and dominance have caused deep scars in their political economies. The Muslim countries have blindly pursued economic growth, as directed by the institutions of the industrialised world and accepted by the politically oppressive regimes of the Muslim world. Exports to the industrialised world have been pursued to the extent that Muslim countries have marginalised trade between themselves – intercommunal trade flows between the Muslim countries have stood at 10 per cent of world trade for over two decades now (IDB Annual Reports). In addition Muslim countries have used trade as a vehicle to buy heavy armaments, turning them into some of the world's most indebted countries (SESRTCIC, 1993). The pursuit of economic growth has made the Muslim countries subservient to and trapped in technological and financial dependency on the West on a scale never experienced before.

The pricing of resources in the Muslim world has always been governed by US-led G7 political policies, leading ultimately to the Arab countries deception of the new international economic order and the common fund ideas presented by the developing countries, precisely to strengthen their own petroleum export revenue surpluses by keeping this commodity out of the integrated commodity arrangement. This was also triggered by the interests of capital-surplus Arab states to protect the assets they built up in the IMF. Investments were diverted from the developing countries into industrial capital markets. This build-up of funds in Western capital markets led to the replenishment of IMF financial shortfalls from Saudi Arabian Monetary Agency (SAMA) bail-outs and the private and public sector funds of many Muslim countries going to the now flourishing Eurocurrency markets (Zeinelabdin, 1989).

As the autocratic rulers of Muslim nations have played their egos on self-directed growth and the development prescriptions dictated by the West, they have become politically subservient to the whims of Western economic and political policies. Because of their rigid adherence to Western developmental models, no viable Islamic common market or regional economic integration has arisen since the regional one that existed during the Ottoman times. Furthermore, when the Islamic Development Bank (IDB) wanted to apply some Islamic instruments in

the member countries, this led to conflicts with the commercial and competitive instruments of other major development organisations who had interests in the member countries of both the IDB and other development organisations. Consequently the IDB, unlike the World Bank, failed to induce any structural changes to socioeconomic development that might have led to the evolution of a future Islamic common market as part of regional Islamic economic integration. The IDB ceased its attempt to influence the planning exercises of the member countries and became a mere sleeping partner. The IDB has thus failed to have a moral, material or developmental impact on the member countries. Its so-called Islamic instruments fell grossly short of being effective when the central essence of Islamic politico-economic instruments, that is, to facilitate structural transformation in socioeconomic development lines in Islamic framework, remained absolutely absent (Choudhury, 1989, 1993).

The organisation of Islamic conferences (OIC) as a developmental and political institution of the Muslim countries reflects the meek voice of its membership, as it lay, subjugated and defeated under the yoke of a hegemonic power that is dominated by Muslim demagogues, who are in turn dominated by the West. The recent history of the OIC has been one of complete failure, shame and disrepute, having failed to resolve any of the conflicts in the grief-stricken Muslim world. The Muslim world today is on fire – from the unprotected fragility of Muslim Bosnia-Herzegovina, to the merciless Russian activities in the Muslim rimland, to the Middle East and beyond. This fire is consuming the economic, political, military and human resources of this large part of the earth.

The Post-Cold-War Politico-Economic Consequences

In the Muslim world the post-Cold-War politico-economic dynamics have not led to the kind of change that has arisen in Eastern Europe and the newly industrialising countries of South America and the Far East. Rather it has led to bipolarity and resource deprivation.

The bipolarity is of two kinds. First, there is bipolarity between the rising tide of Islamic political resurgence against Western designs. This is happening on Western soil itself, as Islam is increasingly represented through its subnational model of assertion, as a different yet pronounced world view of human development against Western dominance (Choudhury, 1995). Second, it is happening in Muslim countries as a protest against the oppressive manifestation of regionally dominant Muslim governments that have failed to promote the Islamic way of life, thought and future trends. This opposition has now become a global

phenomenon that is both politically and intellectually driven. Within this combined purview the label of Islamic fundamentalism is a misnomer, as explained by Esposito, while it has been shown to be inexorable in Huntington's idea of civilisational clash (Esposito, 1992; Huntington, 1993).

This rise of bipolarity was recently introduced as a major topic at the Royal Institute of International Affairs in London (July 1995), where it was presented as a major concern for the Western world. The forum expressed the need for a better understanding of global Islamic unrest if the future prosperity of the West is to be secured. Western support of autocratic governments in Muslim countries having failed to quell such unrest. There is a general realisation now that the Islamic change is irreversible. The already massive but still growing Muslim populations globally and at the grass roots will ultimately determine this vital change. This is where the stake of the Muslim countries with regard to the kind of global resource allocation explained in Figure 7.2 lies. Those at the Islamic grass roots are becoming increasingly opposed to the interests of Western governments, their political agents and development organisations in every area of engagement with the Muslim world, be this in connection with economic growth, development or political activism. This process of change is proving irreversible in a world that has changed dramatically since the end of the Cold War.

Wherever growth is being enforced at the expense of structural change, the structural debilities of such growth regimes on the present and future generations, are proving economically and politically costly. On the economic side, Table 7.1 shows that external sector disequilibrium has been despicable for Muslim countries as a whole in recent times. External sector imbalances have been and will continue to be a force for uncertainty in the Muslim world as long as it remains under Western tutelage. The debilities will be played out by the whims of Western self-interest. This in turn will be posed by the unholy alliances among governments, transnationals and institutions of Western nations and their protagonists in the Muslim nations.

It is true that for the Muslim countries on average, the improving trend in the real per capita GDP growth rate is seen to be caused by a high degree of export orientation. But dependence on foreign loan capital is significant, and the proportion of debt to GDP in the Muslim countries is double that of the developing countries in general. The debt-service/export ratio is significantly higher than in the developing countries. These are serious indicators of the vulnerability of OIC members to the interest rate and exchange rate mechanisms of the West under G7 macroeconomic

Table 7.1 Selected external-sector macroeconomic indicators for OIC members (percentages)

	1987	1988	1989	1990
Rate of real per capita GDP growth	-0.7	-0.2	0.8	3.2
Inflation	20.7	22.3	21.2	14.7
Rate of change in exports	19.1	5.8	18.4	22.6
OIC members share in total developing country debt		30.1	30.5	30.8
Debt/GDP ratio	-	83.0	82.4	80.3
(developing countries)	-	[45.9]	[42.7]	[41.8]
Debt service/export ratio	-	35.4	31.0	27.5
(developing countries)	-	[26.7]	[22.2]	[19.8]

Source: SESRTCIC documents, presented by the SESRTCIC to the twenty-first Islamic Conference of Foreign Ministers (SESRTCIC, Ankara, Turkey, April 1993).

policy coordination (SESRTCIC, 1993). Selected external sector macroeconomic indicators are shown in Table 7.1.

Political Implications

Politically, the rise of globalisation and the opening of markets by means of export-led growth and coordinated macroeconomic policies can lead to the subservience of developing economies to industrialised ones. The goal of self-reliance as part of the long-run transformation to socially authentic development in the developing countries would then be defeated. The economic integration that is going on in the Middle East is proving this fact.

In recent times the establishment of a peace accord between the Palestine Liberation Front and Israel under the guidance of the US., is seen as a wish for economic hegemony by Israel in the Arab World. Furthermore, by the coming of the World Trade Organisation and expansion of trade blocs, and subsequently, by the extension of the MFN clause broadly to all nations, the Israeli hegemony as a stereotyping of Western control in a globalised world is likely to gain high ground if the present state of affairs continues. Asa-El (1992) writes in this regard: 'Shimon Peres, Israel's new/old foreign minister, is the quintessential guru of Middle East economic integration. Now he envisions a Middle Eastern

Common market, may be even a NATO-type defensive system. "There are only two alternatives here", Peres said in a recent interview, "Benelux or Yugoslavia".

MULTILATERAL WORLD TRADE ORGANISATION AND THE MUSLIM WORLD

Globalisation has been explained in this chapter as a politico-economic dynamic in the tripartite relationship of the mercantilist world-system entrenching the West in regional hegemony to maximise self-interest. There is an objective function that governs this end of the political economy of globalisation. It is a neoclassical objective function based on the aggregate utilities of three agents and three processes. The agents are Western governments (political = North-South), Western institutions (Bretton Woods, United Nations and the WTO = South-North) and the regional economic integration among certain developing nations (= South-South). The far look of global economic integration has an eye toward fusing South-East Asian regional integration blocs with Western economic cooperations such as the EU and NAFTA. The three processes are the dominance of the G7 nations over the developing countries (North-South), the dominance of elitist governments over their citizenry in the developing countries (South-South, leading to South-North) and the reverse relationship between the second kind of dominance in sustaining the first kind of dominance (South-North). This completes the tripartite relationship of the Eurocentric world-system in the globalising age we formalised earlier.

We now introduce the bipolarities caused by the relationship between the West and Islam; between regionalism and Islam. Since the politico-economic conflict is taking place in the midst of a neoclassical economic orientation towards globalisation, we will adopt such an approach for the objective criterion on globalisation.

The Multilateral Trade Agreement (MTA) is unequivocal in its aim to enforce the Bretton Woods trade and development policies. The MTA document states: 'Minister [should] further invite the Director-General of the MTA to review with the Managing Director of the International Monetary Fund and the President of the World Bank, the implications of the MTA's responsibilities for its cooperation with the Bretton Woods institutions, as well as the forms such cooperation might take, with a view to achieving greater coherence in global economic policy making' GATT, 1993.

To all intents, purposes and consequences the MTA relegates regional economic cooperation to a monolithic, multilateral, world trading arrangement. This is exemplified, for example, by US opposition to the formation of the East Asian Economic Cooperation (EAEC) in recent years, although Malaysia has been trying to impress on the US that the EAEC is a consultative group and not another trading bloc. The blocking of interregional trade arrangements is yet another device to replicate what a non-tariff barrier would do. In the face of such barriers from the G7, led by the US, differential protection of infant industries under managed trade would weaken, to the disadvantage of developing countries. Commodity prices will continue to plummet. The technological dependence of developing countries on the North and its transnationals will persist. The agricultural sector, agro-based industries, resource industries and resource-based manufacturing activities in developing countries will experience falling terms of trade. Consequently, structural transformation based on the maximisation of intersectorial linkages and intercommunal trade will receive a setback.

How will these recent developments affect Muslim countries? Table 7.1 taken up in light of the tripartite relationships among economic, institutional and political forces in a mercantilist world-system, means that WTO will be used in the following directions. The existence of an open trading bloc will rule out the possibility of a future Islamic common market. Existing regional trading arrangements such as the Asian Free Trade Agreement, the Gulf Co-operation Council and the Islamic Development Bank's efforts to promote economic cooperation among Islamic countries will all be caught up in world trade competition. In other words, trade creation will be emphasised over trade diversion for development purposes. The prospect of generating development common funds among the Muslim countries and promoting trade by means of the instrument of foreign trade financing now being done by IDB, equipment leasing and equity financing, will all be subdued in the competitive game of maximising profits based on self-interest and by diverting resources into such competing outlets. The outlets themselves will mean partial treatment of selected ventures, projects and nations in light of the political preferences of industrialised nations and their transnationals, all taken up in the tripartite relations.

With the return of market forces and the diversion of funds into world competition for goods and services, Muslim countries will be governed not simply by economic forces but also by enabling forces in the midst of political and institutional interests. Such competition will drive away resources from Muslim countries to Northern nations and economic

unions. The important point to note here is that market forces alone do not determine national economic welfare, as the neoclassicists would have us believe (Buchanan, 1964). For according to the neoclassical school, trade can bring about increases in economic growth, specialisation and economic welfare when tariffs do not distort the terms of trade. Yet a combination of economic forces with institutional and political forces inevitably proves that selective tariffs will be at the centre of the rising trading blocs. Along with this, exchange rates will become volatile in the face of balance of payments shortfalls arising from a shortfall in exports. An increase in the exchange rates to correct the imbalance by activating capital inflows will cause a further shortfall in exports, and this will worsen the existing trade deficits. Lowering the exchange rates will fuel inflation. This in turn will cause an increase in interest rates and a shortfall in investments in general. Hence there will always be exchange-rate volatility as nominal tariffs return with the growth of global trading interspersed among so many trading blocs, most importantly the EU and NAFTA.

It is interesting to note what may well be the nature of the future borderless world of trade. In the process towards globalisation and trade harmonisation under the MTA, weaker blocs will lose out or become dysfunctional, and will be increasingly engulfed by larger and stronger ones. The only dominant ones in this respect will be NAFTA and the EU. Their power and prowess could increase immensely as they extend over the dead bodies of defunct regional economic blocs. In the end, world trade will become so harmonised there will be no reason for trading blocs to exist any more. Sufficient rents will have been collected by the industrialised economies and their supporters through their regional interests to liberalise trade altogether in the neoclassical sense.

The first of the weaker trading blocs to go will be those in the Middle East, since they have proved of little worth to date (Nienhaus, 1989). Any future prospect of an Islamic common market, given the present inaction of the OIC, cannot arise from the shambles of a capitalisation of the global economy through the kind of tripartite relations we have explained here. Any move towards the development of a system of interlinked regional groupings in the Muslim world will be confronted by the machinations of the industrialised nations, their development institutions and interest groups, as reflected in the mercantilist Eurocentric tripartite relations of the type mentioned above.

Hence there exists distinct power sharing in the mercantilist orientation to the globalisation process under the WTO as an institution carrying with it the political and economic interests of dominant states at all levels. These work against the people who form a different complex of political

mass in Muslim nation states. The struggle against bipolarity and Eurocentricity, would therefore have to disrupt the tripartite relationships by a stronger world-system interrelationships among economics, institutions and politics. Bipolarity will still have a special relevance at the grass-roots level, microenterprises and among the general populace of the otherwise elitist governments that links to the power-centred global dominance. Therefore the new wave of change must logically arise from these grass-roots levels. The new transformation would have a premise, an approach and a world view that are different from the ones adhered to in the occidental, power-centred type of tripartite relations. Its most enduring and effective power will be its moral and human appeal, its acceptance and dynamics for change by rejecting the entropic collapse of the new mercantilist world system.

Such a consequence can happen to the Eurocentric world system even at the heyday of its dominance. The entropic conditions caused by this world system is shown by the cumulative effect of what is going on today in the name of global privatisation under the capitalist agenda: ecological death, poverty, debts and deficits, uncertainty, economic, social and political insecurity and conflict at large. All these happen because the tripartite relationship which must grow unbounded in the full grown mercantilist globalisation under the dominant WTO institutionalism, must promote such an entropic form self-interest (Raymond, 1992).

TOWARDS ISLAMIC CHANGE

What alternative world view could combat the rage of globalisation against justice, equity, social well-being, moderation and long-run material gains? Can the nationalism that is pronounced in so many regional economic blocs provide an answer? The answer to this last question is clearly in the negative, for the world would still be a theatre of conflict between cultures and races in the name of self-righteous truth and ways of life, and this would be no different from the power-based tripartite relationship of the mercantilist world system.

Does the answer lie in the present call by so many Muslim countries for an Islamic common market? Again the answer is in the negative, for this is merely an ideological concept. It belongs to the emotive spectrum of racial and cultural verities, and is a slogan used by Muslim governments and their institutions against the authentic aspirations of people. Some, for example Judith Miller, would argue that democratic rights should not be granted to Muslim nations for fear that the governments in these coun-

tries, having no political legitimacy, will find themselves politically overwhelmed by the rise of the Islamic grass roots (Islamic fundamentalism in her terms).

Can the Islamic world view of change arise from isolated calls by some Muslim countries for Islamic government? The answer is still in the negative: the call for Islamic government, as found today in Pakistan, Iran, Sudan and Afghanistan, is not necessarily based on the rulings of Islamic Law (*Shari'ah*). The foundations of Islamic change must be epistemologically grounded in the Divine Writ, and discourse should take place on matters concerning the conduct of world affairs, life and thought, as these must arise from the common Muslim consensus in accordance with the *Qur'anic* and *Sunnatic* rules (*Ijma*).

Hence if Islam is to provide an alternative to the deprivations of the mercantilist perspective of globalisation, it must be an authentic Islamic state that will take upon itself the process of reconstruction to this final state. It must also be brought about by an international movement for politico-economic change in the Muslim world and not simply in particular Muslim countries. It must be a participatory change where the philosophical idea of grass roots embodies *Ummatic* (world nation of Islam) commitment, vision and pragmatism. Its singularity from all other arrangements in the Eurocentric and dominant arrangement is its emphasis on knowledge as the basis of a globally interactive-integrative process that leads to affirmation and evolution of the knowledge process. It can not be formed by coercion. It need not comprehend the entire globe. It can only generate a synergy of interrelations within itself and with the others, and thus launch itself to progressively greater levels of comprehension.

THE ISLAMIC ALTERNATIVE TO GLOBALISATION

What is the concept of *Ummah*? What is an *Ummatic* transformation? How does an *Ummatic* transformation relate to the globalisation process? These questions will now be addressed in order to posit an alternative to globalisation – one that is powerful enough to combat the Eurocentric and dominant mercantilism of the capitalist world system. We will again base the discussion on the tripartite relationship between economy and society, institutionalism and politics. Our world view is derived from the *Qur'anic* epistemology and its methodological orientation, whereby this unification epistemology is externalised across the Islamic political economy.

The Concept of *Ummah* in Global Order

The *Qur'an* relates the concept of *Ummah* to the community of the righteous, who will enjoy what is right and forbid what is wrong. The Islamic state of Madinah, established as a constitutional state by the Prophet Muhammad, together with the description of *Ummah* given here implies that transformation to a state of bliss is through purposeful collective action, whereby individual potential for moral and material progress is realised. This involves all markets – now ethicised substantively as explained in earlier chapters – institutions and the political order. Beyond this, *Ummah* is a global concept, forming itself as the nation of Islam progressively transcends national boundaries towards becoming universal. It is a transcendence that is not just geographical in nature but also inter- and intrasystemic. The complementary relations that form and activate themselves in such a wide system of interrelationships and bring together the instruments to realise them in a specific and organised form, derived principally from the *Shari'ah*, is *Ummah*. The underlying process of change constitutes the concept of *Ummatic* transformation. The *Qur'an* refers to such a transformation also as *Uswatul Hasanah*, the communion of bliss and goodness.

Ethicised markets are essential for *Ummatic* transformation, for it is in the midst of uncoerced freedom and in the face of the inexorable reality of truth that evidence is produced and the fullness of human potential realised. Markets are thus encouraged in the Islamic world view. Yet the market is now an ethicised institution of social contracts and exchange. It is therefore intrinsically an institution that must come purposefully in touch with and in turn be sensitised by other institutions, including the state. Between these institutions, state and markets, is established the question of maximum function of 'ethicised' markets induced by the guidance of government in promoting information, standards and supervision toward creating the *Ummah*. Individuals and markets establish *Ummah*; the government assists in such efforts. Individuals arising from the grass roots thus form governments and institutions, just as, with their creativity and responsibility, thus establish ethicised markets. All this can happen if and only if knowledge pervades the entire system. Most fundamentally, since such knowledge must spring from and reinforce the *Qur'anic* attributes of just balance, just purpose, certainty, well-being and sustainability, then knowledge must both centre around these and evolve from them. But these attributes are also the attributes of God in His singular state of divine unity. Hence the flows of knowledge become the natural emanation from

Unity and 'onto' the unifying order established by the Divine Writ. This totality of knowledge-centred comprehension of the universe and all its subsystems, small and large, defines the stock of knowledge, the *Tawhidi* epistemology.

Ummatic Globalisation

Globalisation through *Ummatic* transformation necessitates the formalisation of the tripartite relationship between ethicised markets, institutions and the political order in the midst of knowledge flows that brings out moral-material complementarity premised on the attributes of *Shari'ah*. Market transformation through the *Shuratic* process, which was illustrated in Figure 3.1, now becomes more extensive. Now there are not only national micro-*Shuras* but also international *Shuras*, which are interlinked by strings of micro-*Shuras*. The greater the extent of such decentralisation and diversity, the richer the knowledge generation and the greater the moral-material realisations. This functional relationship was formalised in Chapter 2.

The nature of *Ummatic* transformation is shown in Figure 7.3. The origin O_1 denotes the initial contracting position of one Muslim group (*ISL*) with another Muslim group (*W*). This latter group can also be taken as the world outside the *Ummah*. Now the initial contracting point is O_2 . A point such as a inside the Edgeworth-Bowley kind of social contractarian box is shown to be evolving (as shown by the random field around it) for the mutual benefit of *ISL* and *W*. This takes place by interaction-integration followed by evolution. Thus such a point can exist if and only if the box itself is increasing in size, as shown by the dotted boundaries. Point a is the bundle of the type shown and always evolving into multiple directions to denote the joint goodness of the participating partners.

We may thus take the axes of the boxes to represent trade (growth, efficiency, efficiency) (I_1), distribution (I_2) and knowledge formation by interactions or participation (I_3). Likewise W_1 is trade, W_2 distribution and W_3 knowledge formation.

Both in the case of other groups in the *Ummah* and with the world itself, the Islamic world in its own precept of globalisation brings about economies of scale through knowledge transmission. This shows that there will be good scope for interactions between the Islamic and the other world as well as within the *Ummah*, on the basis of such knowledge formation as explained by the *Shuratic* process, explained earlier. The interactions in the Islamic world are brought about by strings of micro-*Shuras* spanning all sectors and agents. It requires the healthy flourishing of

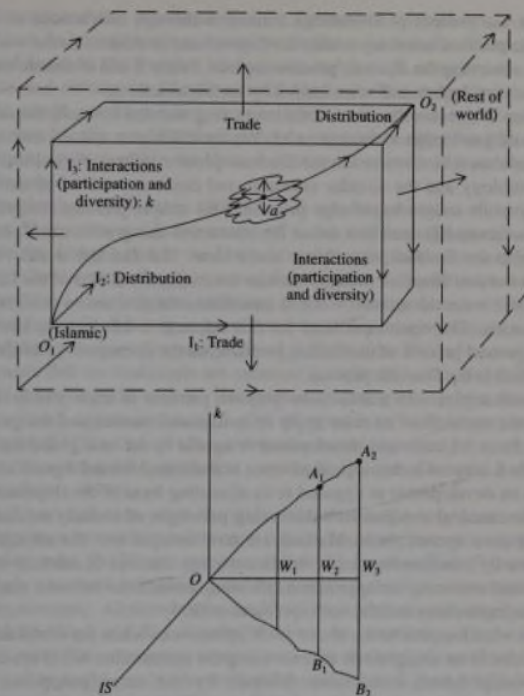


Figure 7.3 Resource allocation and globalisation in the *Ummatic* concept

markets, institutions and state. This makes it possible for interactions to occur between them and to be carried forward towards realising practical forms in the real world. The practical forms in this case are shown by I_i , $i = 1, 2, 3$; W_i , $i = 1, 2, 3$. Instruments toward promoting these are activated toward realising the interactive process.

This interactive-evolution of the global order is shown by the effect of the knowledge formation process on the resource allocation process. Now the evolving knowledge-induced points A and A' relate with the complementary points between IS and $W-B$ and B' . Points A and A'

denote the process of knowledge formation through interactions of the Islamic political economy within the *Ummah* and in relation to the world, while observing the *Shuratic* process in place. Points *B* and *B'* denote trade values, distribution and so on caused by such interactions.

When *W* denotes the other world interacting with the *Ummah*, the same forms of knowledge formation exist. Yet the difference and the constant alertness must be observed in the *Shuratic* process to keep the unification epistemology and the circular causation and continuity model of unified reality in its unique knowledge premise. This unique premise comprises the *Qur'an* and *Sunnah* that define the interactive-integrative world view. It is also the *Tawhidi* or unifying world view. The *Tawhidi* world view points out that *Shari'ah* rules necessitate security and defence of the Laws from vile external actions, while it establishes the discursive process in unification. The equivalent term for this interactive-integrative, knowledge-centred process of unification premised on the epistemology of Unity (*Tawhid*) is the *Shuratic* process.

For example, with transactions between partners in trade and investment the same *Shari'ah* rules apply as in financial matters and the grass-roots focus on trade and development is upheld in the new globalisation agenda. Likewise technological advance is reoriented toward a grass-roots focus on development as opposed to an alienating form of development in the neoclassical marginalist substituting paradigm of socially equitable distribution against trade. Markets are now brought into the ethicising process by transforming the invisible exchange concept of markets with the social contractarian approach implicating interactions between market agents, institutions and the socio-political order.

But what happens to the above *IS-W* interactions when the world order functions in an antagonistic manner using the mercantilist world system? Knowledge-based interactions decrease by the same proportion as 'deknowledge' increases in the world system. The Islamic world resources are increased within itself for reasons of a greater degree of growth and security, moral and material sustainability in the market process. All these are motivated by the knowledge-formation dynamics underlying their occurrence. With the diversion of funds into lucrative and sustainable markets within the Islamic world as a result of demand, supply, large population size and diversity, the markets of the capitalist world system lose creativity and richness. The institutions and political order behind the capitalist markets, as exemplified by the tripartite relationship of the mercantilist world system, thereafter establish *Shuratic* relations with the *Ummah*. The dynamics of *Ummatic* transformation now replace the capitalist world system (Chapra, 1992).

Examples of this can be seen in the Ottoman Empire and its external relations. In Islamic history, examples are also to be found in the contracts signed between the Prophet Muhammad and foreign communities both within and outside the Islamic state of Madinah. The study of such contracts would provide an important insight into the future evolution of a conscious Muslim world in the light of its approach to objective globalisation taken up both within the *Ummah* and between the *Ummah* and the rest of the world order.

Development institutions of the *Ummah* now become types of representative *Shuras* that guide the course of action and manage change, both within the *Ummah* and in the *Ummah's* relationship with the world. The interactions among the *Shura(s)* of development organisations and the micro-*Shuras* of the grass roots are circularly integrative and become evolutionary. In this way a grass-roots focus on development is established and is activated as an agenda of globalisation. This of course does not mean that transnationals are necessarily replaced by microenterprises in the Islamic world system. The grass-roots precept is an idea that can motivate all agents across all scales of operations without necessarily being small. This idea revolves around the knowledge-based dynamics of interactive-integrative evolution premised on the *Shuratic* process (Choudhury, 1996c).

In the special case when the grass roots denote the very poor, whose poverty must be ameliorated through the development process in any globalisation order, the Islamic instrument of wealth taxation (*Zakah*) becomes not only a national but also a global financial flow through an international grants economy. Alongside this, sacrificial meat provisions during the two sacrifices (*Hajj* and *Eid al-Adha*) become an internationally provided social good. Since no charge is associated with this kind of sacrificial meat distribution to the needy, the market for such a social good establishes a grants economy for the grass roots. Development institutions then become organisers as well as advisers to national governments on ways of using *Zakah* funds for the poor, weak and disabled.

Other development instruments prescribed by *Shari'ah* and the outlets for participatory ventures prescribed by *Shari'ah* are also used in combination with and innovative extensions of the above two basis instruments. Thus to realise the sustainable development needs of the *Ummah*, the elimination of waste (*Israf*) and productive transformation of the grants economy is generated by *Ummah-wide* and worldwide participation in profit sharing, equity participation, joint ventures and cofinancing projects. All of these financing instruments were mentioned earlier (Qureshi, 1990).

Ummatic Transformation

Ummatic globalisation, unlike the tripartite relationship of the mercantilist world system, means a systems-oriented organisation of markets with extensive interlinkages that create wealth and distribution, growth and social well-being out of universally complementary processes. It is a geographically systemic interrelationship and is generated by means of knowledge flows that enable the realisation of moral-material simultaneity. Without this characteristic the system will degenerate. The whole gamut of ethicised markets, institutions and political entities, together with the instruments that support these structures in their interactive-integrative interrelationships, are possible only in the framework of unification. This end result in turn is attained through enaction of the *Shuratic* process as it is premised uniquely on *Shari'ah*.

Figure 7.4 shows the process underlying the rise of Islamic development cooperation in contradistinction to the mechanism of mercantilist, Eurocentric development cooperation, as these individually affect the *Ummatic* concept. The diagram is self-explanatory, but it is important to note the reverse dynamics of the two processes – mercantilist Eurocentricity and Islam. The concept of globalisation is then differently defined in these two orders. Since the interactive process of the occidental world system offers a reinforcing system of individuation and competition, the tripartite interrelationship is reproduced in the midst of the process of deepening individuation among the agents of this system. In the Islamic globalisation concept, knowledge as interactions premised on unity and realising itself through global unification, centres the recreative process. This is shown by the continuous evolution of the circular causation and continuity model, now working at the world level. Such an evolutionary process is shown by the unfolding of the arrows from the idea of the grass-roots transformation taken up in the framework of the *Shuratic* process. The process then evolves towards realisation of global grass-roots transformation in the Islamic common market. The web of interrelationships underlying such a transformation constitute globalisation in the Islamic world view. The concepts of globalisation in mercantilist Eurocentricity and in the Islamic world view are countercyclical to each other. This proves the contradictory dynamics between the two processes as opposing world-systems.

Policies for Ummatic Transformation

Some of the instruments that can provide momentum for the coordination and integration of the *Shuratic* process among these diverse groups are as

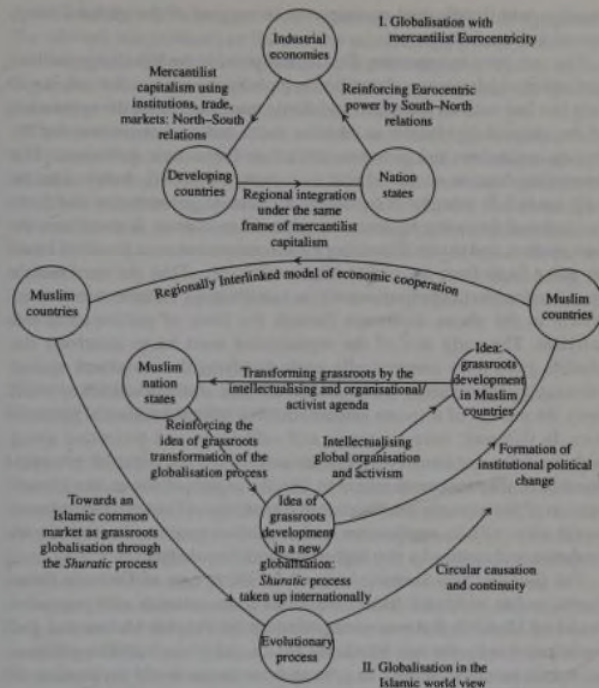


Figure 7.4 The rise of Islamic development cooperation and its conflict with mercantilist Eurocentricity

follows: an international system of financial firms; formation of capital markets; trade, investment and production revolving around development instruments such as foreign trade financing with suitable mark-ups (*Murabaha*), profit sharing (*Mudarabah*), equity participation, joint ventures and confinancing (*Musharakah*), secondary financing instruments and trust funds; clearing houses and export financing schemes; investment guarantees, human capital development and grass-roots participation,

together with intellectual participation in support of the global Islamic movement for change.

This last point is important. First, it will provide the knowledge-centred realisation of Islamic transformation in global perspectives. Second, it will help insulate such an international Islamic movement from the oppression of the national bipolarities in Muslim states and against intervention by foreign institutions and governments in their Eurocentric dominance. The internationalisation of the Islamic movement for global change must be well funded. It must be independent of national governments and from institutional financing by any other than Islamic ones. It must have its own markets and media. Financing for the movement must be raised on an on-going basis from the global Muslim citizenry. Thus the movement's own development organisations will act on the basis of their co-ordinated efforts in the above directions through the force of participation and activism. The early aim of the organisation must be to transform the Muslim grass roots economically while fortifying the movement against sabotage and oppression from outside. Its own institutional set-up must carry the process of activism and constructive implementation of possibilities. In this way, once economic self-sufficiency and protection along with the defensive arm of activism are established, the tripartite interrelationship of the movement comes to life. As explained above, the Islamic version of the tripartite interrelationship comprises (1) a knowledge-based world view, (2) its application to the creative world order and (3) its evolution and continuity into higher levels of knowledge.

The *Qur'anic* and *Sunnatic* basis of the above type of *Ummatic* transformation lies within the framework of the communitarian entrepreneurial model of Madinah that was exemplified by the Prophet Muhammad and participated in by the new Muslims (*Ansars* and *Muhajirs*). This politico-economic model then rose to give succour to the world civilisation of Islam for all times. Note that the world has always thought about entrepreneurial basis of change in every culture and thought. The difference that the Madinah model makes is the Prophet's exemplification of the communitarian precept into a constitutional reality. The concept thus rose to be a practical model while being also the essence of politico-economic thought. This was a sharp departure from the elitist philosophy of the Greeks, which has continued to feed Western.

The *Qur'an* and *Sunnah* reinforce each other in establishing the ultimate Islamic principle of economic transactions. This principle, derived from the *Qur'an*, makes trade in the good things of life highly recommended, whereas speculative transactions and risk-pricing by means of interest rates and profiteering (*Riba*) are categorically forbidden. The prin-

cial instruments of Islamic political economy were outlined in Chapter 3. The relevant rule (*Ahkam*) on the positive relationship of trade with social well-being and *Ummatic* transformation, and the negative relation of the same with interest transactions, at once brings to attention the special place of a new formalism in economic reasoning.

This new economic formalism involves an interrelationship between monetary policy, exchange rate, tariffs, socioeconomic development and social well-being, which replaces the highly uncertain and speculative relationship that is found to exist between interest-rate and exchange-rate mechanisms on the one hand, and monetary policy on the other, as found in the Eurocentric mercantilist order and its adverse effects on regional trading blocs. We will examine the new interrelationship in light of the Islamic prescription of *Ummatic* globalisation described above.

THE NATURE OF TRADE AND MONETARY POLICY IN THE ISLAMIC GLOBALISATION PROCESS

Money in the Islamic framework of investment is an endogenous concept. That is, money is simply the volume of currency needed to monetise an investment in *Shari'ah*-approved ventures. The argument is that in the absence of interest charges there can be no exogenous supply of money, since money itself does not perform the function of exchange but simply the store of value and provides a currency medium for goods in an exchange. Thus there can be no money markets. There are only markets for goods and services in which such items are monetised. Banks hold currency to perform two functions: (1) to service the investment and consumption needs of customers on demand, and (2) to provide a cushion in times of excess demand. Banks themselves do not control currency-denominated money; only Central Banks can do this, and money is supplied to or withdrawn from the economy in response to demand and supply in the real economy for goods and services.

Households and investors hold stocks, shares and other kinds of participatory certificates that entitle them to share in profits and risks in the expectation of realising cash flows. Such shares and certificates are convertible across the counter, thus holders of currency either hold certificates (cheques in conventional banks) or they liquidate these certificates in exchange for currency. A 100 per cent liquidation of certificates is possible by the compulsive consumer transferring that amount of money to other customers' deposits (firms) in the form of certificates. In this way

certificates can act as treasury bills. A flow of treasury bills supplied by the Central Bank to commercial banks depreciate the currency. Commercial banks then sell the treasury bills in the capital market. In this way no new money is created. Yet either the demand for currency to finance increased consumption or to finance investments, remains an interchangeable activity in the economy.

For any given phase of expansion of the Islamic economy, consumption bills liquidate household certificates into the investors' hands. Thus the possibility of demand exceeding the demand for investment, or equivalently, the amount of certificates liquidated, is contained by the demand for goods and services. All this means that *ex-ante* money demand equals *ex-post* money supply.

If only freely convertible certificates are held for currency, which themselves can draw profit shares, then the attractiveness to hold such certificates is for banks to guarantee their face value at the time of acquiring them. Here is where extra marginal amounts of currency must be held by the Central Bank to supply to commercial banks upon demand on the basis of their statutory reserves with the Central Bank.

But the Central Bank, besides being a regulator of these statutory reserves and guider of financial policies, is also active in investments in the private sector. Consequently an effective risk diversification can exist: the extensive information that the Central Bank commands can be disseminated to its partners, the commercial banks. The extensive form of participation among firms and investors in the economy enables risk diversification in the midst of extensive information on market exchange. In this way the Central Bank avoids any loss.

On the other hand, in the case of interest-bearing transactions, banks and investors are engaged in speculation. This causes the Central Bank to supply money in accordance with the volume of speculative demand for money. Risk is high and the Central Bank must liquidate its bonds for money, and vice versa, if it is to avoid losses. This is the well-known open market transaction of money and bonds conducted by Central Banks in interest-based monetary systems.

OPEN MARKET IMPLICATIONS ON MONEY AND TRANSACTIONS IN THE ISLAMIC POLITICAL ECONOMY

Next we will study the behaviour of banks, customers and investors in an open economy. In this case, an additional responsibility of the Central Bank is to stabilise the external sector. Since certificates are only held in

Shari'ah-approved outlets, the Central Bank in an Islamic system would not float speculative bonds, shares and stocks in world markets. On the other hand the mobilisation of certificates in productive outlets means risk diversification and a decrease in speculative investments for Islamic bank portfolios. Hence certificates held in investments abroad and liquidated by consumers for buying importables of goods and services, land up in the same circular flow of returns from appropriate consumption and investments in corresponding types of goods and services. In this way, the mechanism interrelating consumption, investment and currency certificates as money held in either consumption or investment demands is no different from the one operating for the closed economy. Central Banks in the Islamic economy perform no different function except additionally to guide consumers and investors towards *Shari'ah*-approved outlets.

Since the quantity of money remains stable in the Islamic economy as a result of its currency-denominated consumption and investment needs, avoiding speculation and exercising *Shari'ah* rules for economic transactions, the holding of foreign-currency-denominated assets is ruled out. We have seen earlier how the interest-rate and exchange-rate mechanism makes the external sector of nation states so volatile. This is a form of speculation on grounds of the political hedging that dominant nations do to destabilise the economic position of their competitors.

In the absence of reserves of speculative, foreign-denominated assets, however, we cannot rule out currency convertibility. But convertibility relates directly to end use in the real economy. In the Islamic economy end use takes the form of consumption and investment in non-speculative outlets. To promote these activities, certificates are perfectly flexible with respect to their liquidation or retention. Certificates are liquidated in exchange for returns derived from the real economic sector in both closed and open economies. Consequently the holding of foreign reserves in such kinds of outlets is perfectly legitimate. They convey the stability of national currency exchange rate attained by virtue of the profitability of the other major countries' productive assets that are held by means of national currency exchange. Such currency stability increases with the size of holdings or by the smallness of holdings in speculative outlets. In this light the *Qur'anic* verse that differentiates between trade and *Riba* (interest transactions) gets extended. Furthermore, international trade here means the legitimacy of the productive use of money in consumption or investment in *Shari'ah*-approved outlets. *Riba* here is thus extended to include speculative functions of unproductive outlets (price for uncertainty, *Gharar*).

CAPITAL MARKET IMPLICATIONS OF MONEY AND TRADE IN ISLAMIC POLITICAL ECONOMY

Exchange rate stability, as explained above, brings about stability in the stock market. This is because the portfolio of securities that are transacted in stock markets are in accordance with the speculation-free outlets of consumption and investment as approved under *Shari'ah*. Since the profitability of such portfolios determines the next round of exchange evolution rate, so also in turn, the exchange rates in these forward lagged forms, increase investments. Consequently the degree of volatility in such markets declines. Capital markets operating under similar principles of investments and outlets in world markets, would now have a greater propensity to hold stocks in such markets. Capital markets of such types get integrated and specifically confined to themselves both due to the exclusiveness of *Shari'ah* rules and due to their own methods of generating returns that steer such portfolios away from speculative outlets. Examples of such portfolios in the West are social funds and environmental funds. In Malaysia such funds are held in *Mudarabah* (profit-sharing) shares, in shares held by the poor target groups (*Amanah Saham Bumiputera*), in unit accounts and other participatory outlets promoted by most financial institutions but particularly by the Islamic Bank of Malaysia and its subsidiaries (Islamic Bank Malaysia, 1994).

Ultimately the question of whether profits in the Islamic economy are generically uncertain or not will determine the question of economic stability. Here the issue of stability of profits is addressed by means of the Islamic principle circular causation and continuity shown in the knowledge-centred world view acting through the *Shuratic* process. Since the *Shuratic* process is endemic to all systems and enables the much needed interaction-integration to occur, it becomes the core of global complementarity in the Islamic political economy.

What Can Produce Stability of Profits?

Stable profits are a function of steady output growth and a sustained price level, such that the price/income ratio and the price/cost-of-production ratio remain stable. Hence the cost/income ratio also remains stable. All this means that consumer economic welfare and the return to producers must be sustained. This in turn is a function of productive investment being kept apart from speculative investment and directed into *Shari'ah*-approved outlets. This is not only essential from the *Shari'ah* viewpoint, it is also consistent with the possibility for the abovementioned key indica-

tors (ratios) to hold steady. Finally, the supply of production inputs must remain fairly elastic. This is made possible by risk-diversification and extensive participation among an increasing number of participants. The consequence of these two forces is marginalisation of the wage economy upon which labour unions and capitalist-worker alienation thrive. It also means an expansion of the participatory economy.

The above relations provide the motivational factors among agents (here firms, consumers and investors) in the Islamic political economy. The opening of participatory ventures generates social trust. This has proved true of the Employee Savings Ownership Plan (ESOP) and the Universal Saving Ownership Plan (USOP) in the US (Wisman, 1989; Ellerman, 1991). The Mondragon Worker Managed Co-operative is another example of a successful corporation arising from the entrepreneurial level. Other examples of grass-roots success with worker-generated, cooperatively managed enterprises are Grameen Bank Rural Development, Amanah Akhtiar Malaysia, and the now banned Dar al-Arqam in Malaysia. Such share-capital-based enterprises have remained fairly insulated from the deep recessionary effects on employment in the US in recent times (Ekins, 1992; Weitzman, 1984).

On the institutional side, effective marketing as part of the trading agenda, information and guidance on investment outlets and the bringing together of potential *Shuratic* participants at all levels are of central importance. Effective management at the level of enterprises and institutions is the heart of sustainability of participatory enterprises. Participation here can work out if the knowledge creation premised on the *Shuratic* process is fused with management and participation in the market-institution-state-global interrelationship as pronounced by the Islamic political economy. This in turn establishes the prospect of steady and stable profitability among enterprises in both the closed and the open systems of Islamic political economy. Consequently the important function of capital market integration, regionally and globally, is accomplished by the monetary, trade and developmental perspectives of the Islamic political economy.

CONCLUSION

We have covered a wide range of topics in this chapter. We started by describing the inner workings of the contemporary globalisation programme as a device for the global control of resources by the mercantilist world system. This world system was explained as a tripartite relationship

between the markets, institutions and governments of dominant industrialised nations. The same model was found to be perpetuated in the regional context by elitist rulers. Hence the Eurocentric model exists at all levels in the present globalisation agenda. In the midst of all this, the objective of development cooperation to improve conditions for the deprived and bring about social well-being is ignored.

The only way to break out of this vicious cycle of intergenerational unsustainability of development in the face of the ethically empty prescription of economic growth, capitalistic ownership and sheer economic efficiency is to create an alternative world view that is much more appealing and powerful than the Eurocentric world system. This could emerge from the extensive knowledge-centred world view that guides ethicised markets through strong interactions between markets, institutions, governments and the international order. This world view is the Islamic political economy, and can equally benefit the Muslim communities and the rest of the world (Choudhury, 1996b).

The consequences of such an interactive-integrative process of globalisation, morally and materially complementing the forces acting at the grass-roots level of development, were brought in to explain the nature of money, trade and development in the Islamic political economy. In this framework we studied the non-interventionist nature of the Central Bank in an Islamic political economy, the prospect of stabilising the external economy and the stock market.

Integrating the *Ummah* into a common market through strings of micro-*Shuras* implies that Islamic economic integration through extensive interactions among these *Shuras*, negates the contrary idea of global integration promoted by the World Trade Organisation under its programme of a world system premised on capitalist mercantilism. Rather, the existence of interactive-integrative micro-*Shuras* implies that regionally interlinked economic cooperations across the Muslim world could in turn be integrated together through the mutual benefits and complementarity that these would all share.

8 Islamic Financial and Socioeconomic Institutions in Malaysia: Examining Viability of the Interactive World View

B. N. Ghosh, Abdul Fatah Che Hamat, Muhammad Syukri Salleh and Hanapi Mohd Noor

Malaysia has been driven by its national declaration (*Rukunegara*) towards simultaneously attaining a semblance of economic growth and distributive equity through its development plan. In this, two national programmes have played a key role. First, the New Economic Policy (1970-90) served to attain the principles of *Rukunegara* by combatting poverty and promoting economic restructuring. Second, the current New Development Policy (NDP) aims at instilling ethical values into the Malaysian development process. Here the targets of economic growth and distributive equity are found to complement each other in the sense that both can be achieved simultaneously and not by means of substitution, as in the neoclassical economic system. Such a complementarity of goals lies at the heart of the methodology of Islamic political economy.

The purpose of this chapter is to discuss the roles played by a selected number of Islamic financial institutions in Malaysia in promoting the above mentioned objectives of the NDP.

A SUMMARY OF THE PERFORMANCE OF ISLAMIC FINANCIAL INSTITUTIONS IN MALAYSIA

With the exception of the Islamic Bank of Malaysia, which is part of the banking system, the other institutions discussed here are non-bank financial intermediaries created primarily to fulfil specific purposes. The Pilgrim Management and Fund Board (PMFB) was established solely for the purpose of mobilising the savings of Muslims who intend to travel on

pilgrimage to Mecca. The Syarikat Takaful Malaysia (STM), being the only operator of *takaful* (Islamic insurance) in Malaysia, provides coverage to Muslims against losses from all kinds of disasters, in accordance with Islamic principles as prescribed by Islamic law (*Shari'ah*). The Amanah Saham Darul Iman (ASDI) and the Muassasah Gadaian Islam Terengganu (MGIT) are respectively a trust fund and a pawn broker that act according to Islamic principles and guidelines.

It should be pointed out that in terms of assets these institutions account for only a very small fraction of the total assets of the Malaysian financial system. As can be seen from Table 8.1, three of these institutions (the IBM, PMFB and STM) together account for less than 1 per cent of total assets (0.83 per cent in 1990 and 0.73 per cent in 1993). The two remaining institutions (the ASDI and MGIT), by virtue of their regional set-up (that is, confined to the State of Terengganu only), are assumed to contribute even less. Two points can be made here in this connection. One is that the high growth performance of over 8 per cent experienced by the Malaysian economy over the past few years was achieved mainly through conventional capitalistic methods rather than Islamic ones. However, the Islamic institutions' contribution to total assets has stayed relatively constant over the years, which indicates that the growth of Islamic institutions in Malaysia

Table 8.1 Assets of the Malaysian financial system, 1970-93

	1970		1980		1990		1993	
	Mil.M\$	%	Mil.M\$	%	Bil.M\$ (Mil)	% (Mil)	Bil.M\$	%
Banking System	7445	64.1	54346	73.3	22.5	69.8	413.9	72.6
Islamic Bank			171 (1983)		1385 (Mil)	0.43	2.0	0.35
Non-bank financial intermediaries	4167	35.9	19807	26.7	96.9	30.2	156.6	27.4
Syarikat Takaful	-	-	-	-	38.2 (Mil)	0.01	100.9 (Mil)	0.02
PMFB	17	-	197	0.27	1234 (Mil)	0.39	2066	0.36

Sources: Bank Negara Malaysia, *Annual Report* (1990, 1991, 1993); Bank Negara Malaysia, *Wang Dan Urusan Bank Di Malaysia*, 1989.

has risen in tandem with that of the sectors of the financial system that are claimed to have contributed to the high growth rate of the economy.

ISLAMIC BANK OF MALAYSIA (IBM)

The IBM was formed in 1983 as part of the government's effort to create a dual banking system, that is an Islamic banking system and a conventional system. Its basic objectives are (1) to meet the banking and credit needs of the Muslim population in Malaysia according to the rules of *Shari'ah*, which prohibits interest, and (2) to fill the void in the existing banking system by offering the alternative services of a fully operational commercial bank based on Islamic principles of banking and credit that conform to *Shari'ah*.

The long-term objective of the government is to create a fully fledged Islamic banking system to function parallel to the conventional system. This requires the fulfilment of three conditions:

1. There must be an adequate number of institutions participating in the system.
2. A broad variety of instruments must be offered.
3. There must be an efficient and effective interbank money market to link the players (institutions) and the instruments.

In addition to the above requirements, an Islamic banking system must also reflect the socioeconomic values of Islam, in the sense of being Islamic in substance and not merely in name.

The second condition was met when a total of 21 Islamic instruments were successfully developed by the beginning of 1993. Regarding the first requirement, the Central Bank had allowed existing financial institutions to offer Islamic banking services using their existing infrastructure and branches. Thus the Interest-Free Banking Scheme (IFBS) was launched in March 1993, in which all commercial banks, merchant banks and finance companies could participate. Finally an Islamic money market to link the institutions and the instruments was set up on 3 January 1994 to cover the following:

1. Interbank trading in Islamic financial instruments.
2. Islamic interbank investments.
3. An Islamic interbank cheque clearing system.

Thus with all three requirements met a fully-fledged Islamic banking system was established to function side-by-side with the conventional one within the framework of a dual banking system.

PILGRIM MANAGEMENT AND FUND BOARD (PMFB)

The PMFB was formed in 1969 specifically to mobilise the savings of Muslims and assist them in performing their pilgrimage. It was observed in the 1950s that Muslims, especially poor ones, (1) saved mainly for the purpose of going on pilgrimage, and (2) kept their savings at home. They shied away from banks because the interest the banks offered was against Islamic practice. The establishment of the PMFB helped fill this void by allowing Muslims to save money to go on pilgrimage without having to worry about interest while at the same time participating meaningfully in the economic activity of the nation through the PMFB. Thus the specific objectives of the PMFB are as follows:

1. To enable Muslims to save their money gradually for the purpose of performing their pilgrimage or for other useful purposes.
2. To allow Muslims, through their savings with the PMFB, to participate in *halal* (permissible) investments in various sectors of the economy such as industry, trade, plantation, land and buildings.
3. To provide protection and services to Muslims while performing the pilgrimage.

In line with the objective of involving Muslims in economic activities, the PMFB participates in all investments that are considered *halal*. These include investments in industry, trade, plantations, land and buildings. As of 1979 it had invested 70 per cent of its assets in shares of Islamically approved companies, 20 per cent in oil-palm plantations, and 10 per cent in land and buildings in urban areas. During the New Economic Policy (NEP) years (1970-90) the PMFB played quite a significant role in realising the twin objectives of the NEP, namely the restructuring of society and the reduction of poverty. The PMFB, through its various projects, has given jobs to many Muslims, held equity in selected companies and ensured the minimum 30 per cent *bumiputera* participation (Malay) in companies where the PMFB holds substantial equity ownership.

The investment performance of the PMFB has been very encouraging, as can be glimpsed from Table 8.2. Its total assets on average grew more than 16 per cent per year in the years indicated. The profit before *Zakah*

(an Islamic tax on the savings and wealth of Muslims) has grown steadily over the years, and by 1993 the figure had more than doubled that of 1989. The bonus issued to depositors also gives some indication of the strength of the company – the PMFB was able to offer bonuses at the rate of 7-9 per cent for at least five consecutive years. Furthermore the *Zakah* payment on the deposits has been quite substantial, and this can only mean that (1) the number of depositors is consistently high and (2) the deposits are maintained over much longer periods. In the final analysis, these indicators bear testimony to the sound growth of the PMFB as it cruised along with the rest in the economy and contributed positively to its impressive performance.

SYARIKAT TAKAFUL MALAYSIA (STM)

The STM, which was formed on 24 September 1984 and started operation on 1 August 1985, is a subsidiary of Bank Islam Malaysia, which owns 87.15 per cent of its equity. Its purpose is to provide Islamic insurance (*Takaful* services) to both Muslims and non-Muslims on a commercial basis but in accordance with Islamic principles and guidelines. However the Muslim need for its services is greater than for non-Muslims, since some have doubts as to the 'Islamicness' of the concept of insurance to cover future undertakings and risks as practiced by the conventional insurance companies.

The provision of *takaful* services is based on the Islamic principles of *al-Takaful* (pooling) and *al-Mudarabah* (profit sharing). The former

Table 8.2 Key indicators of the performance of the PMFB, 1989-93

	Assets (Mil.M\$)	Gross income (Mil.M\$)	Profit before <i>Zakah</i> (Mil.M\$)	Bonus issued (Mil.M\$)	Bonus rate (%)	<i>Zakah</i> paid (Mil.M\$)
1989	1140	114.8	73.8	55.7	7	2.4
1990	1234	101.3	63.1	57.1	7	3.0
1991	1486	137.6	87.1	71.8	8	2.9
1992	1677	163.2	105.5	85.8	8	2.9
1993	2066	282.8	175.3	132.4	9	4.3

Sources: Bank Negara Malaysia, *Annual Report* (1990, 1991, 1993); Bank Negara Malaysia, *Wang Dan Urusan Bank Di Malaysia*, 1989; Lembaga Urusan Dan Tabung Haji, *Laporan Tahunan* (1989, 1991, 1992, 1993).

means a group of people acting reciprocally to guarantee each other, while the latter is a commercial, profit-sharing contract between the provider of funds for a business venture and the entrepreneur. Thus *takaful* may be regarded as a form of profit sharing between the company and the individual participants who desire to guarantee each other against loss or damage incurred by any one of them.

An examination of Table 8.3 shows that the STM has done reasonably well in terms of growth. Its total assets increased approximately four fold from 1989-93, with family *takaful* on average expanding at a slightly faster rate than general *takaful*. However the general *takaful* assets account for much larger proportion of total assets. Participation in the *takaful* schemes has been quite encouraging. New participation in the family *takaful* plans averaged around 3563 per year while the number withdrawing stayed at 461 during the period in question. In the five year period net participation almost quadrupled.

AMANAH SAHAM DARUL IMAN (ASDI)

Unit trust funds have recently become one of the trendy means of bringing about distributive justice and narrowing the rich-poor gap. A few states in Malaysia - Johor, Selangor, Kedah and Terengganu - have launched their own unit trust funds, providing investment opportunities for their people.

Table 8.3 Assets of the STM and certificates issued under the family *Takaful*, 1989-93

	Assets			Certificate (family)		
	Total (Mil.M\$)	Family (Mil.M\$)	General (Mil.M\$)	New	Terminated	Total
1989	25.9	9.1	16.8	3220	335	5 720
1990	38.2	15.5	22.7	3159	402	8 477
1991	57.4	22.6	34.8	3489	384	11 582
1992	77.1	31.9	45.2	4309	603	15 288
1993	100.9	42.6	58.3	3638	581	18 345

Sources: Bank Negara Malaysia, *Annual Report* (1990, 1991, 1993); Bank Negara Malaysia, *Wang Dan Urusan Bank Di Malaysia*, 1989; Syarikat Takaful Malaysia, *Annual Report* (1990, 1991, 1992).

Of these, Terengganu's trust fund is the most unique, and in fact the only pioneering trust fund to adhere strictly to Islamic *Shari'ah*. Established in 1994 by the Terengganu state government, it is called Amanah Saham Darul Iman (ASDI, the Darul Iman Trust Fund). Its Islamicness is monitored by a three-person *Shari'ah* advisory panel, which scrutinises, approves or rejects investments to ensure non-*Riba* (interest free) and Islamically clean business activities. The ASDI's parent organisations is Permodalan Terengganu Berhad.

The main aim of the ASDI is to provide a channel for people from all walks of life to invest their capital (ASDI, 1994, p.12). Apart from corporate organisations, institutions, government servants and private workers, shares worth RM112 million (or approximately 22.9 per cent of the total - RM500 million are allocated specifically to the poor. The task of organising these shares is the responsibility of the government-sponsored Yayasan Pembangunan Keluarga (YPK, the Family Development Foundation). Until 9, September 1995 the proportion of lower-income people such as peasants and fishermen participating in the ASDI's investment opportunities was rather low (0.4 per cent), but with the special allocation through the YPK the Terengganu state government hopes that this percentage will go up substantially. As investors enjoy benefits such as dividends from time to time, the interests of the poor are obviously taken care of.

MUASSASAH GADAIAN ISLAM TERENGGANU (MGIT)

This socioeconomic financial institution is an Islamic pawnbroker, established by the state government of Terengganu. In Malaysia there are currently three Islamic pawn broker: the pioneering Muassasah Gadaian Islam Terengganu, better known as the MGIT, in Terengganu; the Ar-Rahn, an Islamic pawnbroker established by the state government of Kelantan; and the Ar-Rahnu, an Islamic pawn system operated by Bank Rakyat.

The MGIT is fully sponsored by the state government of Terengganu, through the Terengganu Islamic Religious and Malay Traditions Council. It is open to all Terengganu Muslims above 18 years of age. Possessions that can be pawned (*marhun* in Arabic) are currently limited to jewellery made of gold and diamonds. Clients are entitled to 75 per cent of the value of their jewellery, up to a maximum of RM1 500 000. Debts have to be repaid within three months, but with permission this can be extended for another three months. Clients who fail to repay within that period are

given another fourteen days to find buyers for their jewellery, and if they are not able to do so the items are put up for auction. If the amount received exceeds the original loan the excess is given to the client, who has four months to claim it from the MGIT.

Within three years of its launch the MGIT had collected about RM400 000 from clients' contributions. Sixty per cent of the clients are self-employed, for example small entrepreneurs, while the other 40 per cent are government servants. The former group normally uses the MGIT to raise capital for their small businesses, the latter for buying ASDI and other shares. Hence, however small, it provides another means of growth and redistribution.

CONCLUSION

From the foregoing discussion it is clear that to some extent Malaysia has been able to achieve economic growth in tandem with social justice by a deliberate pursuit of institutional change and ethical orientation among Malaysians. Malaysians have responded overwhelmingly to the Islamic methods of financing. Islamic institutions have thus been able to send down deep roots in Malaysia. Because of their dual aims of profitability and distribution they are seen to provide the much-needed balance between dialectical materialism and the ideals of social justice in the *Tawhidi* world view of Islamic political economy.

9 Conclusion

In this book we have shown that the study of Islamic social sciences arises from the treatment of epistemology in any scientific inquiry being premised on a systemic and study of endogenous ethics and values. Such a treatment of the social sciences in particular and scientific inquiry in general is found to rest upon the world view of an interactively integrated universe and its large and small subsystems. Knowledge in such an interactive-integrative world view takes its meaning from the underlying precept of unification across systems. This unification principle is deduced from and converges with the most reduced and foundational axiom of divine unity. It is seen as the essence ingrained in the cosmic whole and its parts. In the Islamic world view this unity is divine unity of *Tawhidi*. It is comprehended not as an empty cosmic wholeness, but as a functional form playing a knowledge-centred role in all epistemological explanations of reality.

The theory of Islamic social science – which also embraces the study of Islamic political economy, various human and institutional systems and their interrelationship with the global order – in this book has been premised on divine unity, in ways that through this the unification of knowledge is defined. Here the core of the unification process has also been called *Tawhidi* epistemology in the strictly Islamic meaning of this concept. The dynamic, structural and functional aspects of this epistemology, which impacts on all scientific systems, were derived from a unique circular causation and continuity model of unified reality. This was explained as continuously revolving interrelationships among the attributes of divine reality. These attributes were shown to be just balance, just purpose, certainty, felicity and reorigination of all systems. The last of these explains the continuity of the unified world view of God, man and the world. This is also the nature of the evolutionary epistemology of the *Tawhidi* world view.

The powerful explanatory nature of unification epistemology, together with its dynamics attributes and ethically endogenous world view, means it can be applied to a wide range of problems and issues. In this book we have shown how the circular causation and continuity model of unified reality applies to comparative scientific epistemology, the construction of an interactive system of social sciences, a general theory of resources, socioeconomic development, economic integration, institutionalism, social

contractarianism and capital markets. Throughout, comparative perspectives on similar issues have been provided to show how the Islamic methodology of the circular causation and continuity model applies to the gamut of issues mentioned above.

References

Introduction

- Agius, E. (1990) 'From Individual to Collective Rights, to the Rights of Mankind', in S. Busuttil, E. Agius, P. S. Inglott and T. Macelli (eds), *Our Responsibilities Towards Future Generations* (Malta: The Foundation for International Studies).
- Choudhury, M. A. and A. F. C. Hamat (1995) 'A Post-Modernist Outlook on Historicism and Political Economy: Comparative Perspectives', paper to be presented at the International Economic Association Congress, Tunis, Tunisia, 18–22 December 1995, now appearing as a chapter in Choudhury, M. A. *Reforming the Muslim World* (forthcoming, London, Eng.: Kegan Paul International).
- Gray, A. (1931) *The Development of Economic Doctrines* (London: Longman).
- Ibrahim, A. (1990) 'Towards a Contemporary Philosophy of Islamic Science', *The American Journal of Islamic Social Sciences*, vol. 7, no. 1 (March).

1 Comparative Islamic View in the Methodology of the Social Sciences

- Arrow, K. J. (1974) *The Limits of Organization* (New York: W. W. Norton).
- Arrow, K. J. (1987) 'Reflections on the Essays', in G. R. Feiwel (ed.), *Arrow and the Foundations of the Theory of Economic Policy* (London: Macmillan).
- Avineri, S. (1973) 'The Hegelian Origins of Marx's Political Thought', in S. Avineri (ed.), *Marx's Socialism* (New York: Lieber-Atherton).
- Boulding, K. E. (1972) 'Economics as a Moral Science', in E. F. Glass and J. R. Staude (eds), *Humanistic Society* (Pacific Palisades, CA: Goodyear).
- Bridel, P. (1989) 'Price Level', in J. Eatwell, M. Milgate and P. Newman (eds), *New Palgrave: Money* (New York: W. W. Norton).
- Buchanan, J. M. (1975) *The Limits of Liberty, Between Anarchy and Leviathan* (Chicago, Ill.: University of Chicago Press).
- Choudhury, M. A. (1990) 'Islamic Economics as a Social Science', *International Journal of Social Economics*, vol. 17, no. 6.
- Choudhury, M. A. (1993a) *Comparative Development Studies: In Search of the World View* (London: Macmillan; New York: St. Martin's Press).
- Choudhury, M. A. (1993b) *The Unity Precept and the Socio-Scientific Order* (Lanham, MD: University Press of America).
- Choudhury, M. A. (1995) *The Epistemological Foundations of Islamic Economic, Social and Scientific Order*, six volumes plus booklet on preliminary matters (Ankara, Turkey: Statistical, Economic and Social Research and Training Centre for Islamic Countries).
- Doak, E. J. (1988) '100% Money', in M. A. Choudhury, *Policy-Theoretic Foundations of Ethico-Economics* (Sydney, Nova Scotia: Centre of Humanomics, University College of Cape Breton).

- Feiwel, G. R. (1987) 'The Many Dimensions of Kenneth J. Arrow', in this (ed.) *Arrow and the Foundations of the Theory of Economic Policy* (London: Macmillan).
- Ferry, L. and A. Renault (1992) 'The Division of Society and the State as a Value: Liberalism and Human Rights', in *From the Rights of Man to the Republican Idea* (Chicago, ILL.: University of Chicago Press).
- Fisher, I. (1911) (1963) *The Purchasing Power of Money* (New York: Kelley).
- Friedrich, C. J. (ed.) (1977a) 'Critique of Pure Practical Reason', and 'Critique of Pure Reason', in *The Philosophy of Immanuel Kant: Immanuel Kant's Moral and Political Writings* (New York: The Modern Library).
- Friedrich, C. J. (1977b) 'Religion Within the Limits of Reason', in *The Philosophy of Immanuel Kant*, op. cit.
- Georgescu-Roegen, N. (1971) 'Measure, Size and Sameness', in *The Entropy Law and the Economic Process* (Cambridge, MA: Harvard University Press).
- Hammond, P. (1987) 'On Reconciling Arrow's Theory of Social Choice with Harsanyi's Fundamental Utilitarianism', in G. R. Feiwel (ed.), *Arrow and the Foundations of the Theory of Economic Policy*, op. cit.
- Harsanyi, J. C. (1955) 'Cardinal Welfare, Individualistic Ethics and Interpersonal Comparison of Utility', *Journal of Political Economy*, vol. 63.
- Hayek, F. von (1931) *Prices and Production* (London: Routledge and Kegan Paul).
- Hayek, F. von (1976) *Law, Legislation and Liberty, the Mirage of Social Justice*, 2 (Chicago, ILL.: University of Chicago Press).
- Infeld, L. (1963) 'The Lawgiver', in *Immanuel Kant, Lectures on Ethics* (Cambridge, MA: Hackett).
- Keynes, J. M. (1930) 'Economic Possibilities of Our Grandchildren', in *Essays in Persuasion* (Cambridge: Cambridge University Press).
- Mill, J. S. (1994) *Principles of Political Economy*, edited by J. Riley (Oxford: Oxford University Press).
- Mises, L. von (1960) 'The Science of Human Action', in *Epistemological Problems of Economics* (Princeton, NJ: Princeton University Press).
- Mises, L. von (1976) *The Ultimate Foundation of Economic Science* (Kansas City, Kansas: Sheed Andrews and McMeel).
- Moore, G. E. (1903) *Principia Ethica* (Cambridge: Cambridge University Press).
- North, D. C. (1981) *Structure and Change in Economic History* (New York: W. W. Norton).
- O'Brien, J. (1991) 'Adam Smith by Gustav Schmoller', *Review of Social Economy*, vol. XLIX, no. 2.
- O'Donnell, R. M. (1989) *Keynes: Philosophy, Economics and Politics* (London: Macmillan).
- Parson, T. (1964) 'Some Phases of the Historical Development of Individualistic Positivism in the Theory of Action', in *The Structure of Social Action* (New York: The Free Press of Glencoe).
- Polanyi, K. (1971) *The Great Transformation* (Boston, MA: Beacon Press).
- Quinton, A. (1989) *Utilitarian Ethics* (La Salle, ILL.: Open Court).
- Rhoads, S. E. (1985) 'Kind Hearts and Opportunity Cost', in S. E. Rhoads, *Economist's View of the World: Governments, Markets and Public Policy* (Cambridge: Cambridge University Press).
- Russell, B. (1990) 'Bergson', in B. Russell, *A History of Western Philosophy* (London: Unwin Hyman, reprint).

- Scaperlanda, A. (1987) 'Institutionalist Methodology and Social Economics', *International Journal of Social Economics*, vol. 19, nos 3-5.
- Schumpeter, J. S. (1971) *Theory of Economic Development* (Cambridge, MA: Harvard University Press).
- Sen, A. (1985) 'The Moral Standing of the Market', in E. F. Paul, J. Paul and F. D. Miller (eds), *Ethics and Economics* (Oxford: Basil Blackwell).
- Shackle, G. L. S. (1972) *Epistemics and Economics* (Cambridge: Cambridge University Press).
- Smith, A. (1937) *The Wealth of Nations* (New York: The Modern Library).
- Smith, A. (1966) *The Theory of Moral Sentiments* (New York: Augustus M. Kelley, reprint).
- Staniland, M. (1985) 'Marxism as Political Economy', in M. Staniland, *What is Political Economy? A Study of Social Theory and Underdevelopment* (New Haven, Yale University Press).
- Steiger, O. (1989) 'Monetary Equilibrium', in Et well et al., *New Palgrave: Money*, op. cit.
- Wellend, E. C. (trans.) (1987) *The Nicomachean Ethics* (Buffalo, NY: Prometheus Books).
- Wicksell, K. (1934) *Lectures on Political Economy* (London: Routledge).

2 The Framework of Islamic Methodology in the Social Sciences

- Acton, H. B. (1970) *Kant's Moral Philosophy* (London: Macmillan).
- Ali, S. A. (1989) *The Spirit of Islam* (Lahore, Pakistan: Islamic Book Service).
- Ali, Y. (1946a) *The Holy Qur'an: Text, Translation and Commentary* (New York: McGraw-Hill) on Lauh Mahfuz see Chapter XLIII, verse 4 and footnote 4606.
- Ali, Y. (1946b) On *Shura* see *ibid.*, Chapter XLII, verse 40-53.
- Ali, Y. (1946c) 'Apart from Truth what remains but error?', *ibid.*, Chapter x, verse 32.
- Ali, Y. (1946d) On the multiplier rewards from acts of goodness see *ibid.*, Chapter vi, verse 160: 'He that doeth good shall have ten times as much to his credit: He that doeth evil shall only be recompensed according to his evil'.
- Attiyeh, G. A. (1985) *Al-Kindi, The Philosopher of the Arabs* (Islamabad, Pakistan: Islamic Research Institute).
- Bacon, F. (1960) *The New Organon and Related Writings* (Indianapolis, IN: Bobbs-Merrill).
- Barrow, J. D. (1991) *Theories of Everything, the Quest for Ultimate Explanation* (Oxford: Clarendon Press).
- Berggren, J. L. (1992) 'Islamic Acquisition of the Foreign Sciences: A Cultural Perspective', *American Journal of Social Sciences*, vol. 9, no. 3.
- Breuer, R. (1990) *The Anthropic Principle: Man as the Focal Point of Nature*, tr. H. Newman and M. Lowrey (Boston, MA: Birkhauser).
- Casti, J. L. (1990) 'Correlations, Cause and Chance, Predictions and Explanation in Science and in Life', in J. L. Casti, *Searching for Certainty, What Scientists Can Know About the Future* (New York: Dover Publications).
- Chittick, W. C. (1989) *Sufi Path of Knowledge* (Albany, NY: State University of New York Press).

- Choudhury, M. A. (1993a) *The Unicity Precept and the Socio-Scientific Order* (Lanham, MD: University Press of America).
- Choudhury, M. A. (1993b) 'Why Cannot Neoclassicism Explain Resource Allocation and Growth in Islamic Political Economy?', paper presented at the International seminar in Islamic Economics, organised by the International Institute of Islamic Thought at the World Bank, Oct. 1993; forthcoming in the Proceedings of this seminar.
- Choudhury, M. A. (1993c) 'Conflict Resolution and Social Consensus Formation in Islamic Social Choice and Welfare Menu', *International Journal of Social Economics*, vol. 20, no. 1.
- Choudhury, M. A. (1993d) *Principles of Islamic Political Economy* (London: Macmillan; New York: St. Martin's Press).
- Choudhury, M. A. (1994) 'Dualism, Perception and Worldview', in M. A. Choudhury, *The Knowledge-Based World View*, lectures given at the National University of Malaysia, mimeo (Faculty of Economics, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia).
- Choudhury, M. A. (1995a) *The Epistemological Foundations of Islamic Economic, Social and Scientific Order*, 6 vols (Ankara, Turkey: Statistical, Economic and Social Research and Training Centre for Islamic Countries).
- Choudhury, M. A. (1995b) 'Ethics and Economics: A View From Ecological Economics', *International Journal of Social Economics*, vol. 22, no. 2.
- Choudhury, M. A. and U. A. Malik (1992) *The Foundations of Islamic Political Economy* (London: Macmillan; New York: St. Martin's Press).
- Degler, C. N. (1991) 'Invoking the Darwinian Imperative', in C. N. Degler, *In Search of Human Nature* (Oxford: Oxford University Press).
- Drucker, P. F. (1993) 'Knowledge', in P. F. Drucker, *Post-Capitalist Society* (New York: Harper Business).
- Garber, D. (1992) *Descartes' Metaphysical Physics* (Chicago, IL: University of Chicago Press).
- Giddens, A. (1983) *A Contemporary Critique of Historical Materialism, Vol. 1: Power, Property and State* (Berkeley, CA: University of California Press).
- Government of Malaysia (1991) *The Second Outline Perspective Plan 1991-2000* (Kuala Lumpur, Malaysia).
- Government of Malaysia (1991) *Sixth Malaysian Plan* (Kuala Lumpur, Malaysia).
- Grandmont, J.-M. (1989) 'Temporary Equilibrium', in J. Eatwell, M. Milgate and P. Newman (eds), *New Palgrave: General Equilibrium* (New York: W. W. Norton).
- Hakim, A. (1941) *The Arabs and Mathematics Part I*, unpublished PhD thesis, Department of Mathematics, Calcutta University. Cites Al-Kindi's work, *Fit Tauhid Min Jihat il Adad* (Divine Unity on the Theory of Numbers).
- Hammond, M. J. Howarth and R. Keat (1991) 'The Project of Phenomenology', in Hammond *et al.*, *Understanding Phenomenology* (Oxford: Basil Blackwell).
- Holton, G. (1975) *Thematic Origins of Scientific Thought* (Cambridge: Cambridge University Press).
- Holton, G. (1979) 'Einstein's Model for Constructing a Scientific Theory', in P. C. Aichelburg and R. U. Sexl (eds), *Albert Einstein, His Influence on Physics, Philosophy and Politics* (Weisbaden, Germany: Friedr Vieweg and Sohn).
- Hume, D. (1992) 'On the Understanding', in *Treatise of Human Nature* (Buffalo, NY: Prometheus Books).

- Huntington, S. P. (1993) 'The Clash of Civilizations', *Foreign Affairs*, Summer.
- Kafatos, M. and R. Nadeau (1990) 'The Road Untravelled: Enlarging the New Logical Framework of Complementarity', in N. Kafatos and R. Nadeau *The Conscious Universe* (New York: Springer-Verlag).
- Kaku, M. and J. Trainer (1987) *Beyond Einstein, the Cosmic Quest for the Theory of the Universe* (New York: Bantam Books).
- Kosko, B. (1993) 'Man and God', in B. Kosko, *Fuzzy Thinking* (New York: Hyperion).
- Kuhn, T. S. (1970) *The Structure of Scientific Revolutions* (Chicago, IL: University of Chicago Press).
- Maddox, I. J. (1971) *Elements of Functional Analysis* (Cambridge: Cambridge University Press) for the mathematical meaning of completeness on topology.
- Mahdi, M. (1964) *Ibn Khaldun's Philosophy of History* (Chicago, IL: University of Chicago Press).
- Masud, M. K. (1984) *Islamic Legal Philosophy* (Islamabad, Pakistan: Islamic Research Institute).
- Nagel, E. (1961) *The Structure of Science, Problems in the Logic of Scientific Explanation* (New York: Harcourt, Brace and World).
- Naqvi, S. N. H. (1994) 'The Framing of Axioms of Islamic Ethics', in S. N. H. Naqvi, *Islam, Economics and Society* (London: Kegan Paul).
- Nasr, S. H. (1964) *An Introduction to Islamic Cosmological Doctrines* (Cambridge, MA: Harvard University Press).
- Nasr, S. H. (1986) 'Fakhr al Din Razi', in *Encyclopedia of Islam*, vol. 5 (Leiden, Netherlands: E. J. Brill).
- Nelson, R. R. and S. G. Winter (1982) *An Evolutionary Theory of Economic Change* (Cambridge, MA: Harvard University Press).
- Paton, H. (1964) *Groundwork of the Metaphysics of Morals* (New York: Harper Torchbooks).
- Popper, K. (1965) *Conjectures and Refutations: The Growth of Scientific Knowledge* (New York: Basic Books).
- Seidler, V. J. (1986) *Kant, Respect and Injustice, the Limits of Liberal Moral Theory* (London: Routledge and Kegan Paul).
- Skinner, R. (1969) *Relativity* (Waltham, MA: Blaisdell Publishing).
- Weinberg, S. (1992) *Dreams of a Final Theory* (New York: Pantheon).
- Wolff, R. P. (1973) *The Autonomy of Reason, A Commentary on Kant's Groundwork of the Metaphysics of Morals* (New York: Harper and Row).

3 Issues in Islamic Political Economy

- Abdallah, F. I. (1985) 'Notes on Ibn Hazm's Rejection of Analogy (Qiyas) in Matters of Religious Law', *American Journal of Islamic Social Sciences*, vol. 2, no. 2.
- Agius, E. (1990) 'From Individual Rights to Collective Rights to the Rights of Mankind', in S. Busuttil, E. Agius, P. S. Ingloft and T. Macelli (eds), *Our Responsibilities Towards Future Generations* (Malta: Foundation for International Studies and UNESCO).
- Ahmed, K. (1980) 'Economic Development in an Islamic Framework', in K. Ahmed (ed.), *Studies in Islamic Economics* (Leicester: Islamic Foundation).

- al-Faruqi, I. R. (1982) *Islamization of Knowledge: General Principles and Workplan* (Herndon, VA: International Institute of Islamic Thought).
- Ali, A. Y. (1946a) *The Holy Qur'an, Text, Translation and Commentary* (New York: McGregor and Werner: "... These are the Ayaths of Revelation - of a Qur'an that makes things clear" (Chapter v, verse 1).
- Ali, A. Y. (1946b) 'No falsehood can approach it from before or behind it: It is sent down by One Full of Wisdom, worthy of all praise', *ibid.*, Chapter XLII, verse 42.
- Ali, A. Y. (1946c) 'And fight them on until there is no more tumult or oppression, and there prevail justice and faith in God altogether and everywhere', *ibid.*, Chapter VIII, verse 39.
- Ali, A. Y. (1946d) 'Behold! God promised you one of the two enemy parties, that it should be yours! Ye wished that the one unarmed should be yours. But God willed to justify Truth according to His words, and He cut off the roots of the believers', *ibid.*, Chapter VIII, verse 7.
- Ali, A. Y. (1946e) 'When the night covered him over, he saw a star: He said: "This is my Lord". But when it set, he said, "I love not those that set". When he saw the moon rising in splendour, he said: "This is my Lord". But when the moon set, he said: "Unless my Lord guides me, I shall surely be among those who go astray ...", *ibid.*, Chapter VI, verses 76-7.
- Ali, A. Y. (1946f) 'The Lord is Self-Sufficient, Full of Mercy: If it were His Will, He could destroy you and in your place appoint whom He will as your successor', *ibid.*, Chapter VI, verse 133.
- Ali, A. Y. (1946g) 'It is He Who produceth gardens, with trellises and without, and dates and tilth with produce of all kinds, and olives and pomegranates, similar in kind and different in variety: Eat of their fruits in their season, but render the dues that are proper on the day that the harvest is gathered. But waste not by excess, for God loveth not the wasters', *ibid.*, Chapter VI, verse 141.
- Ali, A. Y. (1946h) 'To spend out of your substance, out of love for Him, for your kin, for orphans, for the needy, for the wayfarer, for those who ask and for the ransom of slaves, to be steadfast in prayer, and practice regular charity', *ibid.*, Chapter II, verse 177.
- Ali, A. Y. (1946i) 'Behold the Lote tree was shrouded in mystery unspeakable! His (Muhammad) sight never swerved nor did it go wrong! For truly did he see, of the Signs of his Lord, the Greatest!', *ibid.*, Chapter LIII, verses 16-18.
- Ansari, M. A. and M. A. Choudhury (1994) 'The Idea of Sustainable Development in Islam', *Journal of Development Studies*, vol. 1, no. 1.
- Ariff, M. A. and M. A. Mannan (eds) (1990) *Developing a System of Financial Instruments* (Jeddah, Saudi Arabia: Islamic Research and Training Institute, Islamic Development Bank).
- Aumann, R. J. (1964) 'Markets with a Continuum of Traders', *Econometrica*, vol. 32.
- Bakar, O. (1991) *Tawhid and Science* (Kuala Lumpur, Malaysia: Secretariat for Islamic Philosophy and Science).
- Bergh, S. V. D. (1969) 'Introduction', in S. V. D. Bergh (ed.), *Averroes' Tahafut al-Tahafut*, vol. 1 (London: Luzac).
- Boulding, E. F. (1972) 'Economics as a Moral Science', in E. F. Glass and J. R. Staude (eds), *Humanistic Society* (Pacific Palisades, CA: Goodyear).

- Bowden, E. V. (1985) 'The Monetarist Challenge to Keynesian Economics and the "Great Debate" in Economic Evolution, Principles, Issues, Ideas ... Through the Looking Glass of Time' (Cincinnati, Ohio: South-Western Publishing).
- Brown, W. B. and J. S. Hogendorn (1993) 'The Nature of International Economics' in W. B. Brown and J. S. Hogendorn, *International Economy* (Reading, MA: Addison Wesley).
- Carnap, R. (1966) 'Kant's Synthetic A Priori', in R. Carnap, *Philosophical Foundations of Physics*, edited by M. Gardiner (New York: Basic Books).
- Chick, V. (1985) 'Keynesians, Monetarists and Keynes: The End of the Debate - or a Beginning?' in P. Arestis and T. Skouras (eds), *Post-Keynesian Economic Theory* (New York: M. E. Sharpe).
- Choudhury, M. A. (1989) 'The Humanomic Structure of Islamic Economic Theory', in M. A. Choudhury, *Islamic Economic Co-operation* (London: Macmillan; and New York: St. Martin's Press).
- Choudhury, M. A. (1991) 'Social Choice in an Islamic Framework', *American Journal of Islamic Social Sciences*, vol. 8, no. 2.
- Choudhury, M. A. (1994a) 'Economic Growth and Development', in *Economic Theory and Social Institutions* (Lanham, MD: University Press of America).
- Choudhury, M. A. (1994b) 'Epistemic-Ontic Circular Causation and Continuity Model of Unified Reality: The Knowledge Premise', *International Journal of Social Economics*, vol. 21, no. 1.
- Choudhury, M. A. (1994c) 'An Islamic Theory of Moral Entitlement in Comparative Perspectives', in T. O. Nitsch, J. M. Phillips and E. L. Fitzsimmons (eds), *On the Condition of Labor and the Social Question One Hundred Years Later (Commemorating the 100th Anniversary of Rerum Novarum)* (Lewiston: The Edwin Mellen Press).
- Choudhury, M. A. (1995) 'A Mathematical Formulation of the Principle of Ethical Endogeneity', *Kybernetes: International Journal of Systems and Cybernetics*, vol. 24, no. 5.
- Choudhury, M. A. (forthcoming) 'What is Islamic Political Economy?' in Choudhury, M. A. *Reforming the Muslim World* (London, Eng.: Kegan Paul International).
- Choudhury, M. A. (1995) *Islamic Socio-Scientific Order and World System* (Penang, Malaysia: Secretariat of Islamic Philosophy and Science).
- Choudhury, M. A. and U. A. Malik (1992) 'The Essence of the Islamic Political Economy', in M. A. Choudhury and U. A. Malik, *Foundations of Islamic Political Economy* (London: Macmillan; New York: St. Martin's Press).
- Cole, G. D. H. (1966) 'The Theory of Value', in G. D. H. Cole, *Meaning of Marxist Political Economy* (Ann Arbor, Michigan: University of Michigan Press).
- Dampier, W. S. (1961) *A History of Science and Its Relations with Philosophy and Religion* (Cambridge: Cambridge University Press).
- Delgado, G. (1993) 'Indigenous People and UNCED', *Network*, no. 23 (February).
- Faruqi, M. Y. (1992) 'Consideration of "Urf" in the Judgements of the Khalafa al Rashidun and the Early Fuqaha', *American Journal of Islamic Social Sciences*, vol. 4, no. 4.
- Friedman, M. (1980) *Free to Choose* (London: Secker and Warburg).
- Gillies, D. (1993) *Philosophy of Science in the Twentieth Century* (Oxford: Blackwell).

- Gulick, D. (1992) 'One Dimensional Chaos', in D. Gulick, *Encounters with Chaos* (New York: McGraw Hill).
- Harsanyi, J. C. (1955) 'Rational Behavior, Uncertain Prospects and Measurable Utility', *Econometrica*, Vol. 18.
- Hawking, S. W. (1988) 'The Expanding Universe', in S. W. Hawking, *A Brief History of Time* (New York: Bantam Books).
- Heilbroner, R. (1991) 'Initial Reflections on the Human Prospect', in R. Heilbroner *An Inquiry into the Human Prospect* (New York: W. W. Norton).
- Hogendorn and Hull, D. L. (1988) 'Science as Selection Process', in D. L. Hull, *Science as a Process* (Chicago, ILL.: University of Chicago Press).
- Huq, A. (1994) 'The Role of Family as an Institution in Materializing the Ethico-Economic Aspects of Human Fulfilment', *Humanomics*, vol. 10, no. 3.
- Jansen, J. J. G. (1994) 'Islam and Muslim Civil Rights in the Netherlands', in B. Lewis and D. Schnapper (eds), *Muslims in Europe* (London: Pinter).
- Keynes, J. M. (1908) *Treatise on Probability* (London: Macmillan Press for the Royal Economic Society).
- Llewellyn, O. (1980) 'The Objectives of Islamic Law and Administrative Planning', *Ekistics*, vol. 47.
- Maddox, I. J. (1971) 'Metric and Topological Spaces', in *Elements of Functional Analysis* (Cambridge: Cambridge University Press).
- Rahimuddin, M. (trans.) (1985) *Muwatta' Imam Malik* (Lahore, Pakistan: Shah Muhammad Ashraf Press).
- Martinez-Alier, J. (1990) *Ecological Economics* (Oxford: Basil Blackwell).
- Maslow, A. H. (1954) *Motivation and Personality* (New York: Harper and Row).
- Minford, P. and Peel, D. (1983) *Rational Expectations and the New Macroeconomics* (Oxford: Martin Robertson).
- Minford, P. and D. Peel (1983) 'Solving Rational Expectations Models', in P. Mint and D. Peel *Rational Expectations and the New Macroeconomics* (Oxford: Martin Robertson).
- Muses, C. (1995) 'The Unique Reach of Cybernetics in Our fin-de-Siecle', *Cybernetes: International Journal of Systems and Cybernetics*, vol. 24, no. 7.
- Myrdal, G. (1987) 'Utilitarianism and Modern Economics', in G. R. Feiwel (ed.), *Arrow and the Foundations of the Theory of Economic Policy* (London: Macmillan).
- Naqvi, S. N. H. (1978) 'Ethical Foundations of Islamic Economics', *Islamic Studies*, Summer.
- Naqvi, S. N. H. (1981) *Ethics and Economics: An Islamic Synthesis* (Leicester: Islamic Foundation).
- Noor, H. M. (1995) 'Fakr al Din al Razi's Theory of Human Needs and Its Relevance to Ethics and Economics', paper presented at the Fourth International Conference on Ethico-Economics, University College of Cape Breton, Sydney, Nova Scotia, 5-7 Oct.
- Rucker, R. (1983) 'The One and the Many', in R. Rucker, *Infinity and the Mind* (New York: Bantam Books).
- Saud, M. (1994) *Islam and Evolution of Science* (Islamabad, Pakistan: Islamic Research Institute).
- Sen, A. (1987) 'Well-being, Agency and Freedom', in A. Sen, *On Ethics and Economics* (Oxford: Basil Blackwell).

- Shumpeter, J. A. (1954) *History of Economic Analysis* (New York: Oxford University Press).
- Spooner, B. (1982) 'Ecology in Perspective: The Human Context of Ecological Research', *International Social Science Journal*, vol. xxiv, no. 3.
- Sullivan, W. (1989) 'The Contemporary Crisis of Liberal Society', in H. B. McCulloch (ed.), *Political Ideologies and Political Philosophies* (Toronto, Ont.: Wall and Thompson).
- Tomsons, S. (1994) 'How Morality Structures the Human Right to Property', *Humanomics*, vol. 10, no. 4.
- Walliullah, S. (1985) *Al-Fauz al-Kabir Fi Usul al-Tafsir* (The Principles of *Qur'anic* Commentary) (tr.) G. N. Jalbani (Islamabad, Pakistan: National Hijra Council). Also refer to the *Qur'anic* verse: 'None of Our revelations do We abrogate or cause to be forgotten, but We substitute something better or similar' (A. Yusuf Ali, op cit: Chapter II, verse 106).
- Whitehead, A. N. (1978) 'Fact and Form', in A. N. Whitehead, *Process and Reality*, edited by D. R. Griffin and D. W. Sherburne (New York: The Free Press).
- Zimbalist, A., Sherman J. H. and Brown S. (1989) 'USSR Development From 1917 to 1928', in Zimbalist et al., *Comparing Economic Systems: A Political Economic Approach* (New York: Harcourt, Brace and Javanovich).
- Zimmermann, F. W. (ed.) (1981) 'Introduction', in F. W. Zimmermann, *Al-Farabi's Commentary and Short Treatise on Aristotle's De Interpretatione* (Oxford: Oxford University Press).

4 Perspectives of Institutionalism in Islamic Political Economy

- Ali, A. Y. (1946) *The Holy Qur'an, Text, Translation and Commentary* (New York: McGregor and Werner), Chapter xxx, verse 41: Mischief has appeared on land and sea because of the deed that the hands of men have earned, that God may give them a taste of some of their deeds: in order that they may turn back from Evil.
- Ansari, J. (1986) 'Organizational Process', in J. Ansari *The Political Economy of International Economic Organizations* (Boulder, CO: Lynne Rienner).
- Asad, M. (1993) *The Meaning of the Qur'an* (Gibraltar: Dar al-Andalus) on *Qur'an*, Chapter 16, verse 125.
- Becker, G. S. (1989) 'Family', in J. Eatwell, M. Milgate and P. Newman (eds), *New Palgrave: Social Economics* (New York: W. W. Norton).
- Boulding, K. E. (1967) 'Evolution and Revolution in the Development Process', in *Social Change and Economic Growth* (Paris: Development Centre of the Organization for Economic Cooperation and Development).
- Brown, W. B. and Hogendorn, J. S. (1994) *International Economics* (New York: Addison-Wesley).
- Buchanan, J. M. and G. Tullock (1962) *The Calculus of Consent* (Ann Arbor, MI: University of Michigan Press).
- Bush, P. D. (1988) 'Theory of Institutional Change', in M. R. Tool (ed.), *Evolutionary Economics, Vol. I: Foundations of Institutional Thought* (Armonk, NY: M. E. Sharpe).

- Campbell, D. T. (1988) 'Evolutionary Epistemology', in G. Radnitzky and W. W. Bartley, III (eds), *Evolutionary Epistemology, Rationality, and the Sociology of Knowledge* (La Salle, Ill.: Open Court).
- Choudhury, M. A. (1990) 'Some General Equilibrium Approaches in Modelling Ethics and Values in the Economic System', *Humanomics*, vol. 6, no. 3.
- Choudhury, M. A. (1992) 'Toward Organizing an Islamic Political Economy', *The Islamic Quarterly*, vol. xxxvi, no. 4.
- Choudhury, M. A. (1994a) 'Economics and Social Institutions', in M. A. Choudhury, *Theory and Social Institutions* (Lanham, MD: University Press of America).
- Choudhury, M. A. (1994b) 'The Concept of Money in Islam', in M. A. Choudhury 'The Knowledge-Based World View', lecture series at the Faculty of Economics, National University of Malaysia, unpublished.
- Choudhury, M. A. (1995) 'Muslims in Europe: A Critique of occidentalist Views', *International Journal of Social Economics*, vol. 22, no. 6.
- Commission on Global Governance (1995) 'Reforming the United Nations', in *Our Global Neighbourhood* (Oxford: Oxford University Press).
- Copi, I. M. (1973) *Symbolic Logic* (New York: Macmillan).
- Desai, M. (1989) 'Endogenous and Exogenous Money', *The New Palgrave: Money*, (New York: W. W. Norton).
- Drucker, P. (1989) 'The New Knowledge Society', in P. Drucker, *The New Realities* (New York: Harper and Row).
- Eichler, M. (1985) 'The Connection Between Paid and Unpaid Labour and Its Implication for Creating Equality for Women in Employment', *Humanomics*, vol. 1, no. 1.
- Encyclopaedia Britannica Macropaedia* (1981) vol. 2 'History of the Balkans' (Chicago, Ill.: University of Chicago Press).
- Fukuyama, F. (1992) *The End of History and the Last Man* (New York: The Free Press).
- Fusfeld, D. R. (1994) 'Thorstein Veblen and John R. Commons', in D. R. Fusfeld, *The Age of the Economist* (New York: Harper-Collins).
- Georgescu-Roegen, N. (1981) *The Entropy Law and the Economic Process* (Cambridge, MA: Harvard University Press).
- Gordon, H. S. (1993) 'The Economic Theory of a Common-Property Resource: The Fishery', in R. Dorfman and N. S. Dorfman (eds), *Economics of the Environment* (New York: W. W. Norton).
- Hawking, S. W. (1989) *A Brief History of Time* (New York: Bantam Books).
- Henderson, J. M. and R. E. Quandt (1971) 'Welfare Economics', in J. M. Henderson and R. E. Quandt, *Microeconomic Theory* (New York: McGraw-Hill).
- Hicks, J. P. (1968) 'Mathematical Appendix', in J. P. Hicks, *Value and Capital* (Oxford: Clarendon Press).
- [Imam] al-Shatibi (undated) *Al-Muwafakat Fil- Usul al-Shari'ah* (Cairo, Egypt: Abdi Alloh Draz al-Maktabah al-Tijariyah al-Kurba).
- Laidler, D. (1989) 'The quantity theory is always and everywhere controversial - why?', *Atlantic Canada Economic Association Papers*, Vol. 18.
- Macrae, D. C. (1977) 'A Political Model of the Business Cycle', *Journal of Political Economy*, vol. 85.
- Maddox, I. J. (1970) *Elements of Functional Analysis* (Cambridge: Cambridge University Press) on the mathematical concept of limit points.

- Mayhew, A. (1988) 'The Philosophical Basis of Institutional Economics', in M. R. Tool (ed.), *Evolutionary Economics*, Vol. 1, op. cit.
- Mirowski, P. (1988) 'The Philosophical Basis of Institutional Economics', in M. R. Tool (ed.), *Evolutionary Economics*, Vol. 1, op. cit., p. 57.
- Naqvi, S. N. H. (1994) 'Developing Countries and the Uruguay Round Agreement', *Journal of Economic Cooperation Among Islamic Countries*, vol. 15, nos 1-2.
- Nordhaus, W. D. (1975) 'The Political Business Cycle', *Review of Economic Studies*, vol. 42.
- North, D. C. and R. P. Thomas (1973) *The Rise of the Western World: A New Economic History* (Cambridge: Cambridge University Press).
- Nozick, R. (1974) 'Distributive Justice', *Philosophy and Public Affairs*, vol. 3.
- Nozick, R. (1974) *Anarchy, State and Utopia* (New York: Basic Books).
- Ongun, T. (1994) 'Uruguay Round Agreements: An Evaluation', *Journal of Economic Cooperation Among Islamic Countries*, vol. 15, nos 1-2.
- Parikh, J. K. (1992) 'Restructuring Consumption Patterns for Sustainability', *Network*, no. 20 (Oct.)
- Quirk, J. and Saposnik, R. (1968) *Introduction to General Equilibrium Theory and Welfare Economics* (New York, NY: McGraw-Hill).
- Rahman, F. (1984) 'The Principle of Shura and the Role of the Umma in Islam', *American Journal of Islamic Social Sciences*, vol. 1, no. 1.
- Raphael, D. D. (1990) 'Democracy', in D. D. Raphael *Problems of Political Philosophy* (London: Macmillan).
- Russell, B. (1990) *A History of Western Philosophy* (London: Allen and Unwin).
- Sen, A. (1989) 'Justice', in J. Eatwell, M. Milgate and P. Newman (eds), *New Palgrave: Social Economics* (New York: W. W. Norton).
- Sherover, C. M. (1972) *Heidegger, Kant and Time* (Bloomington, IN: Indiana University Press).
- Simon, H. A. (1987) 'Decision Making and Organizational Design', reprinted in D. S. Pugh (ed.), *Organizational Theory* (London: Penguin).
- Turabi, H. (1987) 'Principles of Governance, Freedom, and Responsibility in Islam', *The American Journal of Islamic Social Sciences*, vol. 4, no. 1.
- Veblen, T. (1912) *The Theory of the Leisure Class* (New York: Macmillan).

5 The Islamic World View and the Question of Development

- Ahmad, Z. (1991) 'Islamic Vision of a Just Socio-Economic Order', in Z. Ahmad, *Islam, Poverty and Income Distribution* (Leicester: The Islamic Foundation).
- Ali, A. Y. (1946) *The Holy Qur'an, Text, Translation and Commentary* (New York: McGregor and Werner): 'Who has made the earth your couch, and the heavens your canopy; and sent down rain from the heavens; and brought forth therewith fruits for your sustenance ...' (Chapter II, verse 22).
- Alias, H. M. and M. A. Choudhury (1996) 'Structural Adjustment Within Malaysian Agriculture in Response to Rapid Industrialization', in M. A. Choudhury, U. A. Malik and M. A. Adnan (eds), *Alternative Perspectives of Third World Development: The Case of Malaysia* (London: Macmillan; New York: St. Martin's Press).
- Arrow, K. J. and R. C. Lind (1970) 'Uncertainty and the Evaluation of Public Investment Decisions', *American Economic Review*, vol. 60.

- Arshad, N. (1994) 'International Trade and the Environment: Reaching a Win-Win Situation', seminar on Green Malaysia, Kuala Lumpur, Malaysia, July 1994.
- Boulding, K. E. (1953) 'Toward a General Theory of Growth', *Canadian Journal of Economics and Political Science*, vol. 9, no. 3 (Aug.).
- Boulding, K. E. (1972) 'Economics as a Moral Science', in J. F. Glass *et al.* (eds), *Humanities Society* (Pacific Palisades, CA: Goodyear).
- Cetron, M. and O. Davies (1991) '50 Trends Shaping the World', *The Futurist*, Sept.-Oct.
- Choudhury, M. A. (1983a) 'Principles of Islamic Economics', *Middle Eastern Studies*, vol. 19, no. 1 (Jan.).
- Choudhury, M. A. (1983b) 'A Model of Educational Planning and Development in Islamic Perspective', *Muslim Educational Quarterly*, vol. 1, no. 1.
- Choudhury, M. A. (1989a) 'Privatisation of the Islamic Diversification as an Instrument for the Development of an Islamic Capital Market', in M. A. Choudhury, *Islamic Economic Co-operation* (London: Macmillan; New York: St. Martin's Press).
- Choudhury, M. A. (1989b) *Islamic Economic Co-operation*, op. cit.
- Choudhury, M. A. (1992) 'A Theory of Moral Entitlement in Resource Allocation', in Z. Sattar (ed.), *Resource Mobilization and Investment in an Islamic Economic Framework* (Indianapolis, IN: The Association of Muslim Social Scientists; Herndon, VA: International Institute of Islamic Thought).
- Choudhury, M. A. (1993a) *Comparative Development Studies: In Search of the World View* (London: Macmillan; New York: St. Martin's Press).
- Choudhury, M. A. (1993b) 'Toward a General Theory of Islamic Social Contract', in M. A. Choudhury *Unity Precept and the Socio-Scientific Order* (Lanham, MD: University Press of America).
- Choudhury, M. A. (forthcoming) 'What is Islamic Political Economy?'
- Choudhury, M. A. *Reforming the Muslim World* (London, Eng.: Kegan Paul International).
- Daly, H. E. (1992) 'From Empty-World to Full-World Economics: Recognizing an Historical Turning Point in Economic Development', in R. Goodland, H. Daly, S. el-Serafy and B. von Droste (eds), *Environmentally Sustainable Economic Development: Building on Brundtland* (Paris: UNESCO).
- Drucker, P. F. (1993) 'Society', in P. F. Drucker *Post-Capitalist Society* (New York: Harper-Collins).
- Ferry, L. and A. Renaut (1992) 'The Division of Society and the State as a Value: Liberalism and Human Rights', in L. Ferry and A. Renaut *From the Rights of Man to the Republican Idea* (Chicago, ILL.: University of Chicago Press).
- Ghazali [Imam], trans. F. Karim (undated) *Ihya Ulum Id Din*, 4 Vols (Lahore, Pakistan: Shah Muhammad Ashraf Press).
- Gillespie, M. A. (1984) 'The Question of History', in M. A. Gillespie, *Hegel, Heidegger and the Groundwork of History* (Chicago, ILL.: University of Chicago Press).
- Government of Malaysia (1995) *Economic Report 1995* (Kuala Lumpur, Malaysia).
- Gwartzney, J. D. and R. L. Stroup (1993) *What Everyone Should Know About Economics and Prosperity* (Vancouver, BC: The Fraser Institute).
- Goulet, D. (1974) 'Ethics in Development', in D. Goulet, *A New Moral Order* (New York: Orbis).

- Hayek, F. A. (1978) *Devaluation of Money* (London: Institute of Economic Affairs).
- Hegel, G. W. F. (trans. J. Stribee) (1956) *The Philosophy of History* (New York: Dover Publications).
- Hemphill, T. A. (1991) 'Market's New Motto: It's Keen to be Green', *Business and Society Review*, Summer.
- Henderson, J. M. and R. E. Quandt (1971) *Microeconomic Theory* (New York: McGraw-Hill).
- Huntington, S. P. (1993) 'The Clash of Civilizations', *Foreign Affairs*, Summer.
- Husaini, S. W. A. (1971) *Principles of Environmental Engineering Systems Planning in Islamic Culture, Law, Politics, Economics, Education and Sociology of Science and Culture* (PhD Dissertation, Stanford University, CA).
- Jomo, K. S. (1994) 'OPP2 and GMP: The Second Outline Perspective Plan, 1991-2000 and the Sixth Malaysian Plan, 1991-1995', in K. S. Jomo, *U-Turn? Malaysian Economic Development Policies After 1990* (Townsville, Queensland: Centre for East and Southeast Asian Studies, James Cook University of Northern Queensland).
- Kenen, P. B. (1985) 'Trade and Economic Growth', in P. B. Kenen, *The Industrial Economy* (Englewood Cliffs, NJ: Prentice-Hall).
- Mehmet, O. (1995) *Westernizing the Third World* (London: Routledge).
- Meier, G. M. (1995) 'Technological Progress', in G. M. Meier *Leading Issues in Economic Development* (New York: Oxford University Press).
- Naisbitt, J. and P. Aburdene (1990) 'English as a Universal Language', in J. Naisbitt and P. Aburdene, *Megatrends 2000* (New York: William Morrow).
- Novak, M. (1982) *The Spirit of Democratic Capitalism* (New York: Simon Schuster).
- Phelps, E. S. (1970) *Micro-Economic Foundations of Employment and Inflation Theory* (New York: W. W. Norton).
- Phelps, E. S. (1989) 'Distributive Equity', in J. Eatwell, M. Milgate and P. Newman (eds), *New Palgrave: Social Economics* (New York: W. W. Norton).
- Qaradawi, Y. (undated) *The Lawful and the Prohibited in Islam* (Indianapolis, IN: American Trust).
- Rawls, J. (1971) *A Theory of Justice* (Cambridge, MA: Harvard University Press).
- Rostwo, W. W. (1967) *The Stages of Economic Growth: A Non-Communist Manifesto* (Cambridge: Cambridge University Press).
- Salleh, M. S. (1992) *An Islamic Approach to Rural Development - the Arqam Way* (London: ASOIB International).
- Salleh, M. S. (1994) 'An Ethical Approach to Development: The Arqam Philosophy and Achievements', *Humanomics*, vol. 10, no. 1.
- Schumpeter, J. A. (1934) 'The Fundamental Phenomenon of Economic Development' in J. A. Schumpeter, *Theory of Economic Development* (Cambridge, MA: Harvard University Press).
- Sen, A. (1989) 'Justice', in *Social Economics*: New Palgrave.
- Swayer, M. C. (1992) 'The Keynesian-Monetarist Orthodoxy', in M. C. Swayer, *Macroeconomics in Question* (Brighton: Wheatsheaf).
- Taylor, O. H. (1967) 'Schumpeter and Marx: Imperialism and Social Classes in the Schumpeterian System', in O. H. Taylor, *Economics and Liberalism* (Cambridge, MA: Harvard University Press).

- Todaro, M. P. (1977) 'The Meaning of Development', in M. P. Todaro, *Economic Development in the Third World* (London: Longman).
- United Nations (Various Issues) *Human Development Report* (New York, United Nations).
- Veblen, T. (1912) *The Theory of the Leisure Class* (New York: The New American Library).
- Viederman, S. (1993) 'Sustainable Development: What is It and How Do We Get There?', *Current History*, April.
- Wallerstein, I. (1989) *The Modern World System*, vol. I (New York: Academic Press), Ch. 7.
- Walras, L. (trans. W. Jaffe) (1959) *Elements of Pure Economics or the Theory of Social Wealth* (Homewood, Ill.: Richard D. Irwin).
- Yong, O. (1994) *Behaviour of the Malaysian Stock Market* (Bangi, Selangor, Malaysia: Universiti Kebangsaan Malaysia Press).

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- Ali, A. Y. (1946a) *The Holy Qur'an Text, Translation and Commentary* (New York: McGregor and Werner), ch. iii, verse 117: 'What they spend in the life of this material world may be likened to a wind which brings a nipping frost'.
- Ali, A. Y. (1946b) *ibid.*, ch. v, verse 79: 'Say: "Will ye worship besides God something which hath no power either to harm or benefit you?"'; ch. iii, verse 109: 'To God belongs all that is in the heavens and on earth: to Him do all questions go back'.
- Ali, A. Y. (1946c) *ibid.*, ch. xiv, verse 24: 'Seest thou not how God sets forth a parable? - a Goodly Word like a Goodly Tree, whose root is firmly fixed, and its branches reach to the heavens'; ch. xiv, verse 26: 'And the parable of an Evil Word is that of an Evil Tree: It is torn up by its root from the surface of the earth: It has no stability'.
- Ali, A. Y. (1946d) *ibid.*, ch. iii, verse 169: 'Think not of those who are slain in God's way as dead. Nay, they are living, finding their sustenance in the Presence of their Lord'.
- Barlow, R. (1989) 'Declining Population', in J. Eatwell, M. Milgate and P. Newman (eds), *Social Economics: New Palgrave* (New York: W. W. Norton).
- Barrow, J. D. (1991) *Theories of Everything* (Oxford: Oxford University Press).
- Becker, G. S. (1964) *Human Capital: A Theoretical and Empirical Analysis* (New York: Columbia University Press).
- Berggren (1992) 'Islamic Acquisition of the Foreign Sciences: A Cultural Perspective', *American Journal of Islamic Social Sciences*, vol. 9, no. 3 (Fall).
- Blaug, M. (1970) *An Introduction to the Economics of Education* (London: Penguin).
- Bogue, J. D. (1969) *Principles of Demography* (New York: John Wiley and Sons).
- Boulding, K. E. (1955) *Economic Analysis* (New York: Harper and Brothers).
- Choudhury, M. A. (1978) 'An Economic Aspect of Demographic', *Kajian Ekonomi Malaysia*, vol. v, no. 2.
- Choudhury, M. A. (1989) *The Paradigm of Humanomics* (Bangi, Malaysia: The Universiti Kebangsaan Malaysia Press).

- Choudhury, M. A. (1993) *The Unicity Precept and the Socio-Scientific Order* (Lanham, MD: University Press of America).
- Choudhury, M. A. (1995) *The Epistemological Foundations of Islamic Economic, Social and Scientific Order*, 6 vols (Ankara, Turkey: Statistical, Economic and Social Research and Training Centre for Islamic Countries).
- Choudhury, M. A. (1996) 'Social Frictions and Social Dynamics: Their Impact on the Development Process', in A. N. M. Wahid (eds), *The Economy of Bangladesh: Problems and Prospects* (Westport, CT: Praeger and C. E. Weis).
- Choudhury, M. A. and J. McPhee (1992) 'Political Economy of Demographic Change', *International Journal of Manpower*, vol. 13, no. 9.
- Cohen, J. S. and M. E. Hogan (1994) 'The New Genetic Medicines', *Scientific American*, Dec.
- Coveney, P. (1988) 'The Second Law of Thermodynamics: Entropy, Irreversibility and Dynamics', *Nature*, vol. 333, no. 409.
- Debreu, G. (1959) *Theory of Value* (London: John Wiley and Sons).
- Descartes, R. (1954) 'Discourse on Methods', in S. Commins and R. N. Linscott (eds), *Man and the Universe: The Philosophers of Science* (New York: The Pocket Library).
- Einstein, A. (1954) 'The Problem of Space, Ether, and the Field in Physics', in S. Commins and R. N. Linscott (eds), *Man and the Universe: The Philosophers of Science* (New York: The Pocket Library).
- Godel, K. (1965) 'On Formally Undecidable Propositions of Principia Mathematica and Related Systems', in M. Davies (ed.), *The Undecidable* (Hewlett, NY: Raven Press).
- Gordon, A. (1967) *Goals of Full Employment* (New York: John Wiley and Sons).
- Goulet, D. (1994) 'Material and Moral Incentives as Economic Policy Instruments', *Humanomics*, vol. 10, no. 1.
- Government of Canada (1992) *Economic Instruments for Environment Protection* (Ottawa, Canada).
- Greenspan, R. J. (1995) 'Understanding the Genetic Construction of Behavior', *Scientific American*, April.
- Handa, M. L. (1985) 'Political Economy of Education and Job Attainment', *Humanomics*, vol. 1, no. 1.
- Hawking, S. W. A. (1988) *A Brief History of Time* (New York: Bantam Books).
- Holton, G. (1975) *Thematic Origins of Scientific Thought* (Cambridge, MA: Harvard University Press).
- Husaini, S. W. A. (1971) *Principles of Environmental Engineering Systems Planning in Islamic Culture: Law, Politics, Economics, Education, and Sociology of Science and Culture*, PhD dissertation (Stanford, CA: Stanford University).
- Ingloft, P. S. (1990) 'The Common Heritage and the Rights of Future Generations', in S. Busuttil, E. Agius, P. S. Ingloft and T. Macelli (eds), *Our Responsibilities Toward Future Generations* (Malta: Foundations for International Studies).
- Jackson, R. M. (1993) 'Green Justice: The Facts', in R. M. Jackson (ed.), book, *Global Issues 1992-93* (Guilford, Conn.: The Dushkin Group).
- Kaku, M. and J. Traister (1987) *Beyond Einstein: The Cosmic Quest for the Theory of the Universe* (New York: Bantam New Age Books).

- Kidder, R. (1988) 'Bringing Ethics to Bear', *The Christian Science Monitor*, 25 July.
- Kosko, B. (1993) *Fuzzy Thinking* (New York: Hyperion).
- Levine, D. (1988) *Needs, Rights and the Markets* (Boulder, CO: Lynne Rienner).
- Levitan, S. A., G. L. Magnum and R. Marshall (1976) *Human Resources and Labor Markets* (New York: Harper and Row).
- Leibenstein, H. (1976) *Beyond Economic Man* (Cambridge, MA: Harvard University Press).
- Lutz, M. A. (1994) 'Instrumental Rationality and the Human Dimension', *Humanomics*, vol. 10, no. 4.
- Masud, M. K. (1984) *Islamic Legal Philosophy* (Islamabad, Pakistan: Islamic Research Institute).
- Nordhaus, W. and J. Tobin (1972) 'Is Growth Obsolete?', in W. Nordhaus and J. Tobin, *Economic Growth* (New York: National Bureau of Economic Research).
- Northrop, F. S. C. (1951) 'Einstein's Conception of Science', in P. A. Schlipp (ed.), *Albert Einstein: Philosopher Scientist* (New York: Tudor).
- Organization for Economic Cooperation and Development (OECD) (1984) 'Social Expenditure: Erosion or Evolution?', in *OECD Observer*, no. 126.
- Quinton, A. (1989) *Utilitarian Ethics* (La Salle, Ill.: Open Court).
- Rawls, J. (1971) *A Theory of Justice* (Cambridge, MA: Harvard University Press).
- Russell, B. (1925) *The ABC of Relativity* (London: Allen and Unwin).
- Russell, B. (1990) *A History of Western Philosophy* (London: Allen and Unwin).
- Spooner, B. (1982) 'Ecology in Perspective: The Human Context of Ecological Research', *International Social Science Journal*, vol. XXIV, no. 3.
- Tinbergen, J. and R. Heuting (1991) 'GNP and Market Prices: Wrong Signals for Sustainable Economic Success that Mask Environmental Destruction', in R. Goodland, H. Daly, S. el-Serafy and B. von Droste (eds), *Environmentally Sustainable Economic Development: Building on Brundtland* (Paris: UNESCO).
- Turnbull, S. (1989) 'The Lexicon of Social Capitalism', in W. Morehouse (ed.), *Building Sustainable Communities* (New York: The Bookstrap Press).
- United Nations Conference on Environment and Development (UNCED) (1992) *A Guide to Agenda 21, A Global Partnership* (Geneva: UNCED).
- United Nations Organization (1990) 'Advancement of Women', in *Global Outlook* (New York: UN).
- Vanmarcke, E. (1988) *Random Fields* (Cambridge, MA: The MIT Press).
- Weinberg, S. (1992) *Dreams of a Final Theory* (New York: Pantheon).

7 Development Cooperation in the Islamic Perspective

- Amin, S. (1989) *Eurocentricism* (New York: Monthly Review Press).
- Ansari, J. (1986) 'Conceptual Approaches', in J. Ansari, *The Political Economy of International Economic Organization* (Boulder, CO: Lynne Rienner).
- Asa-El, A. (1992) 'Crescent Comeback?', *World Monitor*, December.

- Brown, W. B. and J. S. Hogendorn (1994) 'International Macroeconomic Policy I', in W. B. Brown and J. S. Hogendorn, *International Economics* (Reading, MA: Addison-Wesley).
- Buchanan, J. M. (1964) 'What Should Economists Do?', *Southern Economic Journal*, vol. 30 (Jan.).
- Callaghy, T. R. (1993) 'Visions and Politics in the Transformation of the Global Political Economy: Lessons from the Second and Third Worlds', in R. O. Slater, B. M. Schutz and S. R. Dorris (eds), *Emerging Global Economic Interdependence* (Boulder, CO: Lynne Rienner).
- Chapra, M. U. (1992) 'The Limits of Capitalism', in M. U. Chapra, *Islam and the Economic Challenge* (Leicester: The Islamic Foundation; Herndon, VA: International Institute of Islamic Thought).
- Choudhury, M. A. (1989) *Islamic Economic Co-operation* (London: Macmillan; New York: St. Martin's Press).
- Choudhury, M. A. (1993) 'Islamic Development Institutions and Their Policy Perspectives', in M. A. Choudhury, *Theory and Practice of Islamic Development Cooperation: Recent Experience of Some Asian Countries* (Ankara, Turkey: Statistical, Economic and Social Research and Training Centre for Islamic Countries).
- Choudhury, M. A. (1994) 'What Do Debt Ratios Tell About Developing Countries' Economic Futures?', *Journal of Economic Cooperation Among Islamic Countries*, vol. 14, no. 2.
- Choudhury, M. A. (1995) 'Muslims in Europe: A Critique of Occidental Views', *International Journal of Social Economics*, vol. 22, no. 6.
- Choudhury, M. A. (1996a) 'The Nature of Globalization and the Muslim World', to appear in a special issue of *Managerial Finance: Globalization and Structural Change*, forthcoming.
- Choudhury, M. A. (1996b) 'Toward Islamic Political Economy at the Turn of the Century', *American Journal of Islamic Social Sciences*, vol. 13, no. 3.
- Choudhury, M. A. (1996c) 'Instruments of Participatory Enterprise for Grassroots Development', in M. A. Choudhury, U. A. Malik and M. A. Adnan (eds), *Alternative Perspectives in Third-World Development: The Case of Malaysia* (London: Macmillan; New York: St. Martin's Press).
- Ekins P. (1992) *A New World Order, Grassroots Movements For Global Change* (London: Routledge).
- Ellerman, D. P. (1991) 'The Democratic Firm: A Cooperative-ESOP Model', in J. D. Wisman (ed.), *Worker Empowerment* (New York: The Bookstrap Press).
- Esposito, J. L. (1992) *The Islamic Threat: Myth or Reality* (New York: Oxford University Press).
- General Agreement on Tariffs and Trade Secretariat (GATT) (1993) *Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations* (Geneva, Switzerland).
- Helleiner, G. K. (1983) 'The Rise and Decline of the IMF', in J. Torrie (ed.), *Banking on Poverty* (Toronto, Ont.: Between the Lines).
- Huntington, S. P. (1993) 'The Clash of Civilizations', *Foreign Affairs*, Summer.
- IMF Survey (1994) 'Assessing Exchange Rates in Terms of Economic Fundamentals', 26 November.
- Islamic Bank of Malaysia (1994) *Annual Report* (Kuala Lumpur, Malaysia).

- Islamic Development Bank (various years) *Annual Reports* (Jeddah, Saudi Arabia).
- Keating, M. (1993) *Agenda for Change* (Geneva, Switzerland: Centre for Our Common Future).
- Kenen, P. B. (1985) 'Exchange Rate and the Current Account', in P. B. Kenen, *The International Economy* (Englewood Cliffs, NJ: Prentice-Hall).
- Kohli, A. (1986) 'Democracy and Development', in J. P. Lewis and V. Kallab (eds), *Development Strategies Reconsidered* (Oxford: Transaction Books).
- Mehmet, O. (1988) *Development in Malaysia: Poverty, Wealth and Trusteeship* (Kuala Lumpur, Malaysia: Institute of Social Analysis).
- Network (1992) 'Conserving and Using Biological Diversity: By Whom? For Whom?', no. 19 (Aug.-Sept.).
- Nienhaus, V. (1989) 'Inter-Islamic Economic Co-operation and Integration: Institutions, Strategies and Obstacles', in M. A. Choudhury, *Islamic Economic Co-operation* (London: Macmillan; New York: St. Martin's Press).
- Ongun, M. T. (1994) 'Uruguay Round Agreements: An Evaluation', *Journal of Economic Cooperation Among Islamic Countries*, vol. 15, nos 1-2.
- Organization for Economic Cooperation and Development (OECD) (1984) *World Economic Interdependency and the Evolution North-South Relationship* (Paris: OECD).
- Qureshi, D. M. (1990) 'The Role of Shariah-Based Financial Instruments in a Muslim Country', in M. Ariff and M. A. Mannan (eds), *Developing a System of Financial Instruments* (Jeddah, Saudi Arabia: Islamic Research and Training Institute, Islamic Development Bank; Kuala Lumpur, Malaysia: Ministry of Finance, Government of Malaysia).
- Raymond, N. (1992) 'The "Lost Decade" of Development: The Role of Debt, Trade and Structural Adjustment', in R. M. Jackson (ed.), *Global Issues 92/93* (Guilford, Conn.: Dushkin Publications).
- Samuelson, P. A. (1948) 'International Trade and Equalization of Factor Prices', *Economic Journal*, June.
- Staniland, M. (1985) 'International Political Economy', in M. Staniland, *What is Political Economy?* (New Haven, Conn.: Yale University Press).
- Statistical Economic and Social Research and Training Centre for Islamic Countries (SESRTCIS) (1993) *Report of the Director General of the Ankara Centre* (Ankara, Turkey: SESRTCIC).
- Third World Quarterly* (1982), vol. 4, no. 3, on Cancun Economic Summit.
- Tisdell, C. (1989) 'Imperialism, Economic Dependence and Development: A Brief Review of Aspects of Economic Thought and Theory', *Humanomics*, vol. 5, no. 2.
- Wallerstein, I. (1979) *The Capitalist World-Economy* (Cambridge: Cambridge University Press).
- Walter, I. (1987) 'The Mechanisms of Capital Flight', in D. R. Lessard and J. Williamson (eds), *Capital Flight and Third World Debt* (Washington, DC: Institute of International Economics).
- Weiss, T. G. (1986) *Multilateral Development Diplomacy in UNCTAD* (London: Macmillan).
- Weitzman, M. L. (1984) *The Share Economy* (Cambridge, MA: Harvard University Press).

- Wisman, J. D. (1989) 'Economic Democracy and American Politics', in M. A. Choudhury (ed.), *Policy-Theoretic Foundations of Ethico-Economics* (Sydney, Nova Scotia: The Centre of Humanomics, University College of Cape Breton).
- Zeinelabdin, A. R. (1989) 'Intergovernmental Capital Flows in OIC Countries and Their Determinants: Recent Experience and Future Prospects', *Journal of Economic Cooperation Among Islamic Countries*, vol. 10, no. 2.

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Masudul Alam Choudhury is Professor of Economics and Director of the Centre of Humanomics at the University College of Cape Breton, Nova Scotia, Canada. He also edits the international journal *Humanomics*. Between 1969 and 1995, Professor Choudhury served in various teaching and research capacities at King Abdulaziz University, University of Toronto, Universiti Kebangsaan Malaysia, Universiti Sains Malaysia and the Islamic Development Bank. Professor Choudhury has published twenty books and a large number of articles in professional journals internationally. His most recent work, comprising six volumes along with a preliminary booklet entitled *The Epistemological Foundations of Islamic Economic, Social and Scientific Order*, was published by the Statistical, Economic and Social Research and Training Centre for Islamic Countries in Ankara, Turkey.

